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A major task in the present study was to develop a Morphology of Occupational Choice that would articulate the main sectors in which occupational decisions are made. These four major sectors, serving as social incentives, influence the choices youth make of their future life work: (1) the intrinsic features of the work task, (2) the extrinsic rewards of work, (3) the extra-role considerations, and (4) the perceived feasibility of the occupational goals. Each of these four sectors can, in turn be differentiated into subcomponents. In its most elaborate form, the morphology comprises 27 elements of choice. Detailed coding procedures for the morphology were developed, with parallel forms constructed for use with choice and exclusion data. Tests were made of the usefulness of the morphology for classifying the structure of what is chosen (or rejected) in occupational decisions. A significant by-product of the present inquiry was the development of a Social Time Perspective Scale that can be used for assessing the extent to which youth adopt a long-term view of the future. A final concern was the methodological issue of the compatibility of interview and questionnaire data on occupational choice and its related factors. Despite expectations to the contrary, the findings revealed fundamentally different results are yielded by the two procedures. (Author)

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PLANNED AND UNPLANNED ASPECTS OF OCCUPATIONAL CHOICES BY YOUTH: TOWARD A MORPHOLOGY OF OCCUPATIONAL CHOICE

Contract No. OE-5-85-026

Robert A. Ellis and Leona Tyler
with assistance of Mark M. Greene

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TOWARD A MORPHOLOGY OF OCCUPATIONAL CHOICE

Introduction

Much of the present concern over unemployment in the United States is based upon the realization that there is an inadequate correlation of existing labor force skills with those that are in demand in our increasingly complex economy. (19, 56, 67) Recently this concern has become more intense and widespread because it is obvious that the disparity will grow even greater in the years that lie just ahead. Under the pressure of these circumstances, various remedies to existing problems have been suggested. Prominent among these are proposals for new and improved educational programs designed to prepare the young for occupational pursuits needed in the economy of the future. These programs are obviously a serious need in our society.

It is one thing, however, to make these educational opportunities available, and quite another thing to have sufficient understanding of the process of occupational decisions by youth so that these educational programs can be effectively implemented. Much still remains to be learned about the factors that are the basis for occupational choices made at any given moment of time. Even more needs to be learned about the pattern of change in occupational choice that occurs over time or the factors that bear upon these changes.

The Center for Research in Occupational Planning was established to engage in a long-term research effort to add to our understanding of the nature of the occupational decision process and of the social and personal factors that facilitate, impede, or prevent youth in our society from developing occupational goals that can be effectively and realistically implemented. An interdisciplinary staff, consisting of persons from the fields of education, psychology, and sociology was brought together to carry on research to answer eventually the following questions:

1. How and why do occupational preferences develop? How do these change over time and crystallize into occupational choices? What are the goal components of a career plan?

2. What intermediate steps must be taken to implement career goals effectively? At what points to these intermediate decisions start to restrict the range of occupational alternatives that remain open?

3. What variables, both internal and external to the individual, impinge upon occupational choice?

4. How and why do some people drift into occupations with little apparent planning or forethought?

5. How and why do other people have their occupational plans disrupted or brought to a standstill? Are there intrapersonal or situational factors that make some individuals better able than others to readjust their goals once they have been disrupted?

The original aim of the research program was to undertake a longitudinal (multi-stage panel-designed) study on a nation-wide scale of the planned and unplanned aspects of occupational decisions made by youth in our society. Because of the magnitude and scope of this endeavor, a preliminary research program was funded by the Office of Education for the purpose of developing and perfecting the concepts and methods that would be relied upon in the larger research undertaking. To this end, a number of pre-studies were conducted by members of the Center's staff during this preliminary research phase. The projects varied widely both in scope and in topic. Some were purely methodological in nature, as questionnaires and interviews for gaining information on occupational choice and its related factors. Others focused on the conceptualization and measurement of situational factors presumed to have significant bearing on the occupational choice process. For example, the goal of one pre-study was to perfect instruments for ascertaining those aspects of family organization and the familial attitudes toward work and life in general that have relevance for the ways in which youth develop conceptions of the world of work and form occupational plans. Another was designed to develop and validate a measure of religious involvement to test hypotheses on the bearing that religious factors may have on occupational choice. Still other pre-studies focused on the occupational decision process itself. One, for instance, was concerned with developing an instrument designed to measure the range and depth of occupational information possessed by youth. Still another had as its aim the development of a morphology of occupational choice, a conceptual structure to articulate the sectors in which occupational choices are made as well as the dimensions along which occupational choice might be assessed.

The research strategy followed at this stage was to allow each investigator to pursue independently at his own pace the objectives of the pre-study under his direction--and, thus, exercise his own judgment about source of data and research design. This strategy was followed in part because of the varied complexity of the pre-study tasks, in part because of the varied data requirements of the pre-studies, and in part because of our general premise about the nature of interdisciplinary research. While we were agreed that any theoretical or empirical understanding of the nature of the occupational decision process requires drawing upon knowledge from the several behavioral sciences, we also agreed that interdisciplinary collaboration cannot be forced. The risk of doing so would be to reduce the inquiry to the lowest common denominator of concepts and methods that can be shared by the separate investigators. Instead, we saw the goal of interdisciplinary research to be best accomplished by pooling the independent efforts of individuals coming from the various disciplines; permitting an opportunity for the free exchange of ideas across disciplinary lines; but, at least in the formative stages of the research, not trying to achieve a common denominator in the research enterprise itself.

The diversity of these pre-studies has made it necessary to alter somewhat the format usually followed in final reports. To do justice to the independent inquiries, it has been necessary to divide the present report into four sections. The first of these is concerned with (1) conceptualizing and measuring the various elements that youth take into account in forming decisions about occupational goals and (2) developing procedures for identifying the dimensions along which these occupational choices are made. Since the chief concern is with what is chosen at a given point of time rather than with the nature of the decision-making process, this section is titled "Toward a Morphology of Occupational Choice."

The three remaining sections of the final report treat the "realism" dimension in occupational choice and the effects of selected aspects of the social structure upon the patterning of occupational goals. They are titled as follows:

Martin H. Acker and Theodore J. Goldman, "Development of an Instrument for Measuring Occupational Information"

Benton Johnson, "Religion and Occupational Preference"

Roy H. Rodgers, "Family and Occupational Choice"

While these reports summarize the main findings of the pre-studies, they do so in abbreviated fashion. Much additional material germane to the pre-studies is contained in articles, papers, and theses written by various persons associated with the Center. A list of these publications is found in Appendix A of this section of the final report.

Problem

As a first step to realizing the aims of the larger project, the present study seeks to introduce and test in a provisional way a conceptual model of occupational choice. The concern here is with the nature of the occupational decisions made rather than with the processes by which they are developed.

The general problem can be broken down into three particular issues:

1. How important a part do status considerations play in occupational choice? The extensive literature on occupational aspirations and expectations, especially in sociology, would tend to suggest that status elements play an important, if not dominant, part in determining the occupational goals youths set for themselves. (6, 33) By focusing so exclusively on the status dimension, the authors convey the impression--perhaps unwittingly--that occupational choice can be equated with status choice. Such a monistic conception of occupational selection, however, is at variance with sociological analyses of the world of work in which the prestige (or authority) dimension is found to be but one of several determining the organization of work relationships and the satisfactions that are derived from the job. (3, 11, 12, 25, 66) Further evidence that status is only one among several factors influencing occupational selection is provided by the vast literature from vocational psychology on the importance of work activities as incentives in occupational choice. (27) Both Roe and Super, for example, see these activities as capable of being classified by fields and, thus, providing a horizontal dimension that cuts across status lines. (44, 59) There is also an extensive body of psychological research on vocational interests in which the emphasis is on differences between fields rather than status levels. (58) The most suggestive evidence of the subsidiary role of status in the selection process is provided by Rosenberg's and Goldsen's research on occupations and values. (21, 45, 46) Their findings indicate that there are a number of attributes of the job besides status that are valued by youth in our society and help shape their occupational goals. Moreover, of the major attributes of the job identified by Rosenberg and Goldsen, status ranks extremely low as an important value--low enough so that the authors reject the likelihood that it is a principal determinant of career selection. Their results suggest the possibility that while the choice of occupational goals has important status implications, these implications may not be directly taken into account by the majority of youth--at least not by those in college--when planning their future careers. The status rewards that may accrue from their occupational decisions may instead be a byproduct of other elements influencing the choice process.

2. To what extent do occupational choices focus on the intrinsic characteristics of the job? Most investigators have assumed that decisions youth make about work are basically job decisions. In other words, they choose among occupational alternatives by examining the requirements and rewards of particular jobs and balancing these considerations against what they perceive to be their own interests, capacities, and values. (2, 18, 59) While this may, indeed, be the situation for many youth, particularly for those following upper-middle-class career patterns, it obscures the fact that concern with the characteristics of a particular job may be of secondary or even of little importance in work decisions that are made. Hollingshead,

for example, points out that lower-class adolescents in Elmtown drop out of high school not to take a job, but to go to work in "the factory." (28) It is clear from his analysis that these youth, in their work orientation, have developed a conception of being attached to a particular organization, but do not think of this in terms of there being a specific occupation or a series of occupations involved. This notion that job considerations may be secondary in work decisions--or at least be importantly augmented by broader institutional considerations--is consistent with Super's addition of enterprise as a third dimension to Roe's twofold classification. (59) It is also sustained by data we have previously collected on college students. Some youth were found to be primarily oriented to the institutional setting for work, such as those who say: "I want to work for Standard Oil." Or, "I want a job where I can work outdoors." Or, "I want a job in an area where I can go hunting and fishing." Thus, data from other studies as well as our own research impressions suggest that any conceptual model of how youth are oriented toward the world of work needs to be expanded to take into account the subsidiary characteristics of work that motivate youth. The fact that such information has not been yielded by past studies of occupational choice may reflect more the commitment of the researcher to assessing specific occupational goals than to the fact that subjects hold only such specific goals. It is, for example, common practice in such research to instruct interviewers to get as precise an answer as possible, with the further instruction to be sure to probe if the response is a general one specifying only the institutional context of work. (Cf., 50, pp. 290-291) Moreover, if the interviewer has failed to probe as instructed, it is still problematic whether the general answer found on the schedule would turn up in the statistical results, since coders are apt to have been instructed to treat all general answers as nonclassifiable.

3. _To what extent are occupational plans formed through a process of exclusion rather than of choice?_ In the research literature, only passing attention has been given to the role of negative choice in occupational decisions. The decision process is conceived of, instead, as a progressive narrowing of occupational preferences. (2, 18, 27, 59) Yet, one possible source of difficulty for many youths is that they know what they do _not_ want to do, but not what they want to do. (61, pp. 204-206) This seems to be the plight of the lower income group studied by Ginzberg _et. al._ (18, p. 155) The "passive and stunted" process of occupational choice determination that is reported to characterize this group can be interpreted as evidence of the essentially negative character of their occupational decisions, for as Ginzberg and his associates point out, almost every one of these boys "hopes . . . to escape from following his father's occupation." Thus, even though these boys are found not to have formed any positive work goals, they may have made some fundamental occupational decisions--decisions, which because of their entirely negative character, may well result in their drifting from job to job. While the exclusion process may in some circumstances be the main factor in occupational decisions, it

is likely in many cases to operate conjointly with the choice process --and particularly for the college-bound. Before coming to college, many students have already learned that certain job areas are not appropriate for them; others, they find, are not feasible because of a lack of talent and limited opportunity for specialized training. At the same time, they have at least provisionally developed long-range goals for the future at the time they enter college; so that both their choices and their exclusions tend to narrow the range of occupational alternatives open to them. (Cf., 21, pp. 24-26.)

Thus, the question of what is being chosen when occupational decisions are reached proves not to be so easy or obvious to answer as might at first appear. As we have tried to suggest, the term, occupational choice, may be a double misnomer. Though decisions about work are made, these may not be job decisions; and they may be predicated more on what is rejected than on what is preferred.

A Morphology of Occupational Choice

The main task of the pre-study was to construct and test a system for classifying the varied factors persons consider in making occupational decisions. In developing this classificatory system, which we call the Morphology of Occupational Choice (MOC), we were guided by four premises about the nature of occupational decisions:

1. Youth are capable of verbalizing the criteria they take into account in deliberating about their future work goals.

2. It is the criteria for their decisions, not the objects of their decisions (i.e., the kinds of occupations chosen) that constitute the main subject for the morphological analysis.

3. The criteria expressed do not appear as isolated concepts, but form clusters that represent dimensions of choice.

4. Negative as well as positive criteria enter into the decision process.

The procedure followed in constructing the morphology was partially deductive, partially inductive. The first step was to cull from the literature a provisional list of factors and dimensions others have used for defining the determinants of occupational choice. (4, pp. 151-153; 8, pp. 40 and 172; 9; 10; 13; 17; 20; 21, pp. 28-29; 22; 23; 24; 30; 31; 32; 36; 38; 39; 41; 43; 45, pp. 16-50; 46; 51; 52; 53; 54; 55; 64) The list was then checked against statements of criteria of choice and exclusion collected during the pre-study from 10 male job corpsmen of college age and 10 male college freshmen. This permitted us to locate gaps in the original set of items and to reduce the number of categories to a manageable number. In choosing among alternatives, we selected those for which there were the clearest empirical referents in the statements of the youth in the test group. A series of revisions were made on a trial-and-error basis until we finally felt satisfied that the set of factors and dimensions comprising the morphology did suitably encompass the full gamut of criteria being mentioned by the test group. It was hoped that the diverse backgrounds, experiences, and outlooks on life of these youth would help insure that the MOC categories would have a wide range of empirical applicability.

Major MOC Dimensions

The trial-and-error analysis revealed four major dimensions into which the various elements of choice (or exclusion) could be grouped. These are: (1) intrinsic features of the work task (i.e., the attractiveness of the work activity, itself); (2) extrinsic rewards of work (i.e., the benefits, such as security and status, derived from work); (3) extra-role considerations (i.e., both the institutional setting for work and such non-work factors as preference for a particular living area); and (4) feasibility considerations (i.e., the perceived chances of realizing specified work goals).

The first two of these major dimensions was taken in slightly modified form from Rosenberg's pioneer effort at conceptualizing occupational values and the value clusters they form. (45, 46) These dimensions reflect, as he has shown, two basic kinds of questions youth may ask when confronted with the prospect of making an occupational choice: "What rewards will I get for my work?" "Will the work, itself, be a satisfying experience?" (45, p. 13) The third major dimension, extra-role considerations, was created in the course of this research.

The last of these dimensions, feasibility considerations, was not originally considered to have relevance for the conceptual scheme, but was included at a late stage of the morphology's development because of its saliency to youth in the test group. Many, for example, reported that a reason for their choosing a particular line of work was that it was something they already knew how to do or that it was something they felt they could do well. Others, instead of appraising their own capacity and experiences, assessed the opportunity structure. As their comments revealed, their decisions about their future goals had involved weighing such factors as the openness of the job market and the chances that a given field offered for advancement.

By incorporating feasibility into the present scheme, we take into account the thesis advanced by Blau and his associates that "a choice between various possible courses of action can be conceptualized as motivated by two interrelated sets of factors: the individual's valuation of the rewards [of work] and his appraisal of his chances of being able to realize each of the alternatives." (2, p. 533) However, our view of the compromise process is broader than theirs. As we see it, the process may involve not only weighing goal preferences against the expected chances of realizing them, but also weighing competing sets of goals against each other.

The Total Morphology

The morphology in its general form can profitably be put to research use. Nevertheless, it is also evident that its research value would be enhanced by a further refinement of the categories of classification. For example, while it may be useful to know that certain youth focus on the intrinsic features of the work task in orienting themselves to the occupational world, and others do not (Cf., 30, pp. 432-434), it is even more important to know which intrinsic features of the work task are actually valued or rejected. Kohn, for one, suggests that it is precisely in this area that fundamental differences are found between the middle and lower classes. It is his view that the middle classes are more apt to experience--and presumably to value--in the work situation "the manipulation of interpersonal relations, ideas, and symbols" rather than "the manipulation of things" and are more apt to focus on gaining autonomy and responsibility in the work role. (32) Similarly, there may be important variation by social class in the type of extrinsic rewards of work that are valued. Hyman, for instance, reports that poorer youth are more likely than those from the middle strata to prefer security to high economic benefits when a choice between the two is presented them. (30, pp. 433-434.)

For these reasons, each of the major MOC dimensions was further differentiated into its component elements. In its most elaborate form, this procedure resulted in the identification of 27 criteria as having potential relevance for the decision process. These 27 elements of choice have been grouped by major dimension and, when appropriate, by subdimension. They are as follows:

A. Intrinsic features of the work task

Self fulfillment

Creativity

Expression of interest in work

Work with head or ideas

Work with hands or tools

Social fulfillment

- Service to others
- Work with people
- Meet interesting people

Power considerations

- Autonomy
- Leadership
- Responsibility

Stimulation

- Variety
- Travel
- Adventure

Work conditions

- Desirable conditions
- Hours on the job
- Safety
- Ease of difficulty
- Duration

B. Extrinsic rewards of work

- Status
- Economic benefits
- Security
- Fringe benefits
- Schedule of payments

C. Extra-role considerations

- Work setting
- Non-work considerations

D. Feasibility

Self appraisal

Assessment of the opportunity structure

Before proceeding further, a few comments about the components we have identified are in order.

In subdividing the first general category of intrinsic features of the work task, we again drew heavily upon Rosenberg's work on occupational values. (45, 46) A comparison of the schemes will reveal that the first two subdimensions we have used are equivalent to the "self-expression" and "people-oriented" value complexes Rosenberg has identified, while our third subdimension can be derived from his findings. (13; 31, pp. 30-34) Moreover, with but few exceptions, the elements of choice included in the three subdimensions are taken directly from value items found in Rosenberg's system. One exception is that the category of "provide an opportunity to use my special abilities and aptitudes," which Rosenberg treats as a single factor, has in the morphology been broken down into two factors: working with head or ideas and working with hands or tools. This was done in part because of the significance stratification theory attaches to the heads-hands division of labor (Cf., 32, 35) and, in part, because of our concern with the possibility that the more general phrasing used by Rosenberg might be implicitly biased toward middle-class values. The terms, special abilities and aptitudes, seemed to emphasize more the mental than the manual aspects of self-fulfillment in work and, thus, to introduce the risk of ignoring situations where youth anticipate gaining self-fulfillment from work in skilled and semiskilled jobs. If findings were to be obtained that lower-class youth are not interested in finding self-expression in the work situation, we wanted to make sure that it was not an artifact of our classification system.

There are two further ways in which this section of the morphology departs from Rosenberg's analysis. One is that the category, meet interesting people, has been added as a third component to the subdimension, social fulfillment; the other is that the category of responsibility has been included as a third component of the subdimension, power considerations. Both these factors were cited as being relevant criteria by boys in the test group. With the factor of responsibility, there was also scattered outside evidence to indicate others had found it a relevant criterion in the decision process. (17, 32)

The two final subdimensions in this first category--stimulation and work conditions--were introduced on the basis of the choice and rejection statements of the youth in the test group. Their comments made it evident that both sets of factors entered into their thinking about their future work plans. Though inductive considerations governed their inclusion in the morphology, research precedent can be found for some of the specific items that have been used. (9, 10, 17, 30, 32, 38, 45)

Rosenberg's analysis also heavily influenced the breakdown of the extrinsic rewards of work dimension into its several components. (45) Like many others, he finds that status, economic benefits, and security are considerations that commonly enter into work decisions, and this was confirmed by our own experience with youth in the test group. In addition, we found "fringe benefits" being mentioned as an important consideration, a finding consistent with the results of Glick. (20) The fifth component--schedule of payments--was included as a reward factor more on the suspicion of its relevance than on what actually had been reported by persons in the test group. There seemed to be a distinct possibility that youth from underprivileged backgrounds in weighing occupational alternatives might take into account the immediacy with which they would be paid: whether wages would be paid once a week, twice a month, or once a month.

The differentiation of the last two major MOC dimensions was governed by considerations already discussed at some length so that they need to be only briefly treated at this point. A fairly straightforward distinction was drawn between two types of extra-role incentives that influence occupational decisions: factors associated with the immediate setting in which work takes place and factors external to work, itself, such as being near one's family. Similarly, the dimension of feasibility considerations was easily divided into two components: self appraisal and assessment of the opportunity structure.

By self appraisal, we have in mind statements about work in which respondents indicate it is something for which they possess the capacity, the experience, the training, or suitable personality traits (e.g., patience). Or the statements may be phrased negatively, indicating that the respondents feel they do not possess one or more of the foregoing. Assessment of the opportunity structure, on the other hand, connotes that the external occupational system has been taken into account by respondents in an effort to estimate the probability of attaining their work objectives. For example, respondents might refer to the openness of the job market, the availability of a sponsor (e.g., my dad is in this business), the possibilities for advancement, or the appropriateness of the sex or age role for him. Assessment of the opportunity structure can also be revealed by negatively phrased statements, as, for example, "the job is only open to people who are older than I."

The factors of self appraisal and assessment of the opportunity structure are useful for determining whether in deciding upon future occupational objectives, some effort has been made to take reality considerations into account--although this by no means guarantees the "realism" of the decisions.

Techniques for Eliciting MOC Data

Two techniques have been developed for eliciting data for analysis by the MOC categories: (1) the method of direct assessment and (2) the Choice Pattern technique. The procedures used in each of these techniques are summarized below.

The method of direct assessment is, as its title implies, a procedure for directly probing the criteria persons use for choosing and rejecting specific occupational goals. A preliminary step is to have a respondent specify the kind of work he wants to do when he starts working (or, if he has no specific job plans, the kind of work he is thinking about doing). If job goals are mentioned, the respondent is then asked whether he considers the job he has chosen to be "a good job" and to indicate his reasons why. Following this, the respondent is asked what kind of work he wants to do at age 50. If his long-term job goal differs from his initial one, a direct assessment is again made of why he does or does not think his age-50 job choice is "a good job."

A somewhat similar procedure is used for gaining information on criteria for rejecting particular occupational objectives. Each respondent, after he has finished reporting on his work plans for the future, is asked whether "At this time, is there any kind of work you know you do not want to do?" and to specify what kinds of jobs these are. He is then asked to indicate why he doesn't want to do this kind of work.

Unlike the method of direct assessment, which treats the criteria for choosing and rejecting occupational goals having specific relevance for the respondent, the Choice Pattern technique is designed to reveal the nature of the criteria persons use to select from occupational possibilities that are perceived as open to them. This technique, which has been developed by Tyler and used with college students and with early adolescents (60, 62), is described by her as entailing the following steps.

> A set of items is presented to the subject on individual cards. His first instructions are to sort them into two groups, those he sees as "possibilities for a person like you" and those he sees as "out of the question for a person like you." He places an item in a "No Opinion" category if he is unable to decide about it either positively or negatively.
>
> At the second stage of the procedure he is asked to group items that "go together in your mind," that "you choose for the same reason" or "rule out for the same reason." The third stage of the procedure involves questioning him about the reasons for his groupings. The interviewer records on a data sheet for each individual his combinations of positive items, his combinations

> of negative items, the reasons he gives for his groupings, and other aspects of his performance, such as the number of "No Opinion" items, the number of ungrouped items on the positive and negative sides, and anything the subject says that seems to throw light on the way he thinks. The procedure is essentially a special kind of interview rather than a standardized test.
>
> The items used in the present study were a set of 50 occupational titles. . . . These lists were based primarily on a tabulation of responses given by groups of 14-year old Dutch and American children to a request that they write down all the occupations they could think of. No item was included in the Choice Pattern set unless it was listed by at least 10 per cent of the people in both groups. (63)

In sum, the method of direct assessment and the Choice Pattern technique correspond closely in that they both require respondents to make positive and negative choices of occupational goals and then with open-ended questions seek to elicit the reasons for these choices and exclusions. They differ, however, in the extent to which the respondents have had to structure their occupational objectives. The Choice Pattern does not require that respondents have specifically formulated job goals, but only that they recognize occupational possibilities that are open to them. Since results with the Choice Pattern technique have been reported elsewhere (63), only the results from the method of direct assessment will be reported in the present paper.

Coding Procedures

Detailed coding instructions for the morphology have been prepared, and a copy of these instructions can be found in Appendix B. For the large part, the coding procedures are self explanatory, but there are a few aspects that merit brief mention.

One is that parallel forms of the codes have been developed for the choice and exclusion data so that each can be analyzed separately. Secondly, in developing the code for the choice data, we have made a threefold distinction among referent items that serve as: (1) a positive criterion of choice; (2) a negative criterion of choice; and (3) a consideration in choice, but not a criterion. For example, a subject might indicate that he wants to become a politician because of the status involved. This would be an instance of "status" used as a positive criterion of choice. Alternatively, a subject might say he wants to become a salesman because he doesn't like working with his hands. This would be an instance of "work with hands" as a negative criterion of choice. Finally, a subject might indicate that he wants to enter high school teaching even though he recognizes that teaching does not pay so well as other kinds of jobs he might enter. This would be an instance where economic benefits have been considered, but have not been used as a criterion. Obviously, for many purposes, analysis would only focus on positive criteria. Still, there are some instances where the major interest would be in the elements of choice taken into consideration regardless of whether they were used as positive criteria; and with the present coding system, this can be accomplished.

Another significant aspect of the coding is the weighting system used for statements of positive criteria involving status, security, and economic benefits. While two persons might use economic benefits as a positive criterion, they need not have the same magnitude of anticipated rewards in mind. One might be oriented to a particular occupation because it offers a chance for "making good money," while the second may be satisfied with an occupation because it provides "a decent income." The code used for these three elements of choice takes this variation into account by weighing statements of positive criteria as high, medium, or low. This way, we have been able to capitalize on using open-ended rather than forced-choice questions for eliciting statements of choice criteria.

The coding procedures have proven relatively easy to use, indicating that the morphology is capable of being translated into empirical terms. Coding reliability has been found to be satisfactory; and on grounds already discussed, face validity can be claimed for the morphology. A fuller test, however, requires evidence that the MOC categories can discriminate effectively between groups known to be different in their orientation to the future and their outlook on the world of work. The procedures and findings for such a test will be found in the subsequent pages. Before turning our attention to the validation study, we want first to describe a significant by-product of the present pre-study. This is a scale that has been developed for assessing youth's time perspective for viewing the future.

The Social Time Perspective Scale

A theoretically and practically significant question that emerged in the present research was whether youth from socially underprivileged circumstances have a more circumscribed time span governing their orientation to the future. And if so, are they likely to develop job goals more as a matter of the immediate circumstances confronting them than as a matter of prior planning. In the course of seeking an answer to this question, three separate procedures have been developed and tried out as ways to measure the time span of youth's orientation to the world around them.

One technique consisted of using forced-choice questions to inquire how frequently youth think about what they will be doing at four designated periods in the future: age 20, age 30, age 40, and age 50. For each period, youth are given four options for responding: Not at All, Rarely, Occasionally, and Frequently.

A second technique involved the use of open-ended questions that require respondents to pinpoint chronologically three crucial time periods in man's life cycle: adulthood, middle-age, and old age (e.g., "When, in your opinion, is a person old?") The guiding assumption here was that a shortened time perspective might be reflected in a collapsed conception of age.

The third, and most nondirective, of these techniques involved a time perspective instrument developed by Vincent (64) that is used in open-ended fashion to gain information on events that respondents think will happen to them in the future. With coding procedures worked out in the pre-study, it has been possible to derive a Social Time Perspective Scale that has turned out to be one of the most useful methodological procedures to emerge from the present research. In the remainder of this section, we shall describe in greater detail the instrument that was used and the scales that have been developed for it.

The Time Perspective Instrument

This device consists of a two-page response form on which the subject is instructed to report seven things he thinks is going to happen to him in the future, sometime during the rest of his life. He is instructed that these can be either things that he is looking forward to or that he would not like to happen. Probe questions are then used for each event cited to ascertain when he expects this to happen and whether he expects this event will be unpleasant or pleasant. While developed originally for use in interviews, this instrument can be used in self-administered questionnaires.

Coding Procedures

The instrument upon first inspection would appear to lend itself well to the task of calibrating respondents' temporal perspectives. By examining the time indicated for future events to happen, we should be able to ascertain (a) the unit of time (whether days, weeks, months, years, or decades) used and (b) the total span of time involved. Upon closer scrutiny, however, this analytical distinction turned out not to be practicable. The unit of time reported was generally a function of the span of time involved, so that proximal events were apt to be reported in days, weeks, or months while distant events were apt to be reported in years. For this reason, there was little utility to coding the unit of time.

Coding of the span of time did not, however, lend itself to easy calibration. The main difficulty was that respondents did not employ comparable or well-calibrated time units in reporting future events.

While some did specify in precise fashion the dates or ages when events would happen, there were many exceptions. Among these are the following:

1. Some gave an open-ended period of time, such as "God knows. I don't."

2. Others reported temporally unspecified contingencies: "I'll become a grandfather--when my children have children."

3. Others qualified with contingencies the time that events would occur, e.g., "I shall start graduate school--if I get drafted, 7 years from now; if not, 4 years from now."

4. Others reported events occurring within intervals of time rather than at points of time. By itself this would pose no problem, except that the lengths of the intervals varied. How do you compare the following three periods for "buying a house": (a) 5 years, (b) 3-7 years, (c) 1-10 years? One might compute the median length of time for "b" and "c" with the result that all three periods entail equally distant time perspectives. But are they? Equally plasible arguments can be employed for using either the maximum or the minimum limits of the intervals, and both of the latter decisions would yield a drastically different order of results.

5. A related problem is the use of pseudo-intervals for reporting events, as for example, the response: "I'll be taking a job--a year from now, for the rest of my life." Is this a one-year time span or a "45-year" time span?

For a long while, the temporal indeterminacy of the information appeared to pose insuperable problems for coding. It was not until near the end of the present project that it was realized that the solution lay in using social, rather than chronological, time for coding anticipated future events.

The clue for this reformulation of the problem was found in the sociological literature on the family life cycle where time is assessed along social rather than biological units. (Cf., 26) Persons go through social stages of development that take them from infancy to early childhood, childhood, early adolescence, adolescence, young adulthood, and adulthood. Though these stages correspond to biological time periods, the important thing is that they are socially rather than biologically defined. Moreover, it can be assumed that it is the socially defined stage of the life cycle that assumes personal significance to the "actor" and others with whom he is in social contact.

Once the issue was phrased in terms of social time, it was possible to reconceptualize the responses to the time perspective instrument as statements about "status episodes" in the future corresponding to the adult life cycle. So long as the life cycle could be assumed to be sequentially ordered, the task of assessing individuals' temporal perspectives reduced to one of determining how far along this future sequence of status episodes their answers fell. For purposes of coding, the adult life cycle was defined as consisting of the following eight episodes or stages (nine, if death is included as the terminal episode):

1. Late Adolescence

   Training (or education) for life, including matriculation as well as graduation

2. Military Service

3. Initial Adult Phase (A)

   Entry into the labor force, marriage

4. Initial Adult Phase (B)

   Buying or renting a home

5. Early Adult Role

   Parenthood or early career (or work sequence) events

6. Intermediate Adult Role

   Midlife events (e.g., seeing children grow up, sending children to college)

7. Late Adult Role (A)

   Becoming a grandparent

8. Late Adult Role (B)

   Retirement

Once the problem of coding was defined in social terms, it was possible to develop five social time perspective scales for assessing how youth used time in viewing the future. Two of these scales assess the maximum event in the life cycle reported (one with death included as a status episode, the second with death excluded). The third scale examines the extent to which the subject's order for reporting life cycle events parallels the temporal sequence of the life cycle. The fourth scale examines the number of levels of the adult life cycle that are encompassed by the subject's responses. Finally, the fifth scale examines the number of adult life cycle events which the subject enumerates in his total answer.

Other Dimensions

Apart from providing a means of estimating the time span used by youth, the data from the temporal perspective instrument offer a number of other dimensions of relevance for occupational choice. The most noteworthy of these are: (1) the saliency of work, i.e., the extent to which work is spontaneously in the forefront of the subject's thoughts about the future; (2) the specificity of work, i.e., the extent to which the subject articulates his work goals· (3) the comparative relevance of work in the network of life decisions that youth must make about marriage, owning a home, getting an education, and owning a new car; and (4) the degree to which a sequence of work plans is contemplated--a scale that might be extremely useful for distinguishing among females with short-term work goals, interrupted career plans, and uninterrupted career plans.

Deferred Gratification

A factor closely related to social time perspective is the willingness of youth to forego immediate social and psychic rewards in order to gain desired social rewards in the future. This willingness to defer gratifications has long been considered an important element in differentiating middle-class youth from their counterparts in the lower class. (1, 7, 48, 57) The difficulty with earlier evidence is that it has failed to distinguish between deferred gratification, per se, and youth's time-perspective for viewing the future. For this reason, an independent effort has been made to assess the willingness of youth at different socioeconomic levels to sacrifice selected social rewards in order to gain their occupational and educational goals.

Two comparable check lists were developed to ascertain what kinds of things respondents would be willing to do "to get a job where they could really make good money" and "to get the education they wanted." The respondents were given a choice of answering: Definitely Yes, Probably Yes, Probably No, or Definitely No to the following items on gratification deferral for occupational goals:

A. Move to a town or place you don't like.

B. Put off getting married for several years.

C. Take a job you are not sure will last.

D. Move away from your family and relatives so you could only see them once a year.

E. Live on a tight budget for several years.

F. Go without having your own car for several years.

G. Put in a 60-hour week.

Except for items "C" and "G," which only have relevance for occupational goals, the same set of items was asked regarding gratification deferral for educational goals. The two substitute items included in the latter check list were:

C. Take a "flunky" job.

G. Spend six nights a week at home studying.

The variables singled out for the pre-study are not intended to be exhaustive of those relevant for understanding the occupational decision process. Many intrapersonal factors, such as achievement motivation, achievement values, and measured intelligence, have not been included. Neither has an effort been made to determine what significant persons inside or outside the family may be providing the social supports needed for developing and implementing work goals or the roles that these persons actually play. Such variables eventually will have to be incorporated into the research design of the project being contemplated on planned and unplanned aspects of occupational choices by youth. In the formative stage of the project, we have been content to concentrate on developing and operationalizing a limited number of concepts that appear to have particular relevance for the larger inquiry.

Method

Data for testing the morphology of occupational choice and related variables were gathered from two radically different samples of male adolescents: college-age youth starting training at the Tongue Point Job Corps Center, Tongue Point, Oregon and male freshmen enrolled at the University of Oregon. The main considerations in selecting these samples were their relative accessibility and the sharp divergences between these youth in their backgrounds and experiences. The job corpsmen represent--perhaps in an exaggerated way--the hard core unemployables in the lower class. Virtually all of the job corpsmen had dropped out (or been expelled) from school and in this way given evidence of an inability to adjust to an institutionalized middle-class existence. Related to this was a lack of the technical and social skills needed for getting and holding a job in today's society. In contrast, the University of Oregon freshmen typify the moderately ambitious middle-class youth in our society who are seeking to use higher education as at least a means for maintaining their log in life and, in most cases, for improving it. Their presence at the University of Oregon can be taken as evidence of their having been able to meet satisfactorily the social and academic demands of high school life. While all will not graduate from college, their presence on campus does serve as testimony to their commitment to the pursuit of middle-class goals of success.

Such pronounced differences in the social composition of the two samples provided a strategic basis for testing the utility of the conceptual schemes that have been developed. If these procedures could not differentiate between two groups so markedly disparate in their outlook on life and presumably in their orientation to the world of work, then the validity of these procedures would certainly be negated.

A second, and even more sensitive, test of the validity of the procedures which have been developed was their ability to discriminate between survivors and non-survivors in the Job Corps program. For this purpose, a two-month follow-up was made to determine which trainees had in this brief period of time been severed from the program, the assumption being that those who dropped out of the program right at the start would be ones most likely to have poorly defined orientations to the world of work.

Sampling Procedures

The job corpsmen chosen for the pre-study consisted of 120 unmarried males ranging in age from 17 through 19 who were for the first time beginning their training in the job corps program. They were selected by taking all new arrivals at Tongue Point during the period from February 26, 1966 to April 9, 1966--except for those who had transferred to Tongue Point from other programs and those who were under 17 or over 20 years of age. All told, there were 130 males who met these criteria. Of these, 120 (92 per cent) actually participated in the pre-study. Follow-up interviews were conducted again with these corpsmen after a period of two months. During this interim, 23 had already been severed from the program, leaving a total of 97 in the sample. Of the 97, we succeeded in interviewing 86.

The sample is obviously not a random one either of all job corpsmen or of job corpsmen at Tongue Point. Rather it reflects whatever vagaries might be present in the allocation procedures for assigning trainees to Tongue Point during this period. Reliance on the present sampling procedure in spite of this limitation was dictated by (1) the need for having data at the time of entry on those trainees who would leave the program at an early stage and return home and (2) the importance of gaining data from the trainees before their exposure to the job corps program might systematically affect their aspirations and expectations regarding the future.

The University of Oregon freshman sample consisted of 48 unmarried males ranging in age from 17 through 19 who were for the first time enrolled in college. They were selected by drawing a random sample of all single first-year freshmen residing in the University of Oregon dormitories in April 1966, a procedure which excluded the approximately 20 per cent of the freshman class who live at home with their parents. The sample contained 53 males, and of these, 48 (91 per cent) were actually interviewed. A re-test session was held with this same group three weeks later. Of the original sample, 46 participated in the re-test.

Initially, our intent was to combine our results from the freshman interviews with parallel data gathered from 41 identically sampled male freshmen to whom mass-administered questionnaires were given. However, as we shall note in the final section of the results, the sharp discrepancy between interview and questionnaire data made this plan impracticable even though it would have had the desirable effect of increasing the number of cases for comparative analysis to 89.

Source of Data

The major source of data for the pre-study was respondents' self reports. With the job corpsmen, these were obtained through 40-minute semi-structured interviews conducted by interviewers trained by the research staff. The majority of interviewers were white males in their twenties who were seniors or graduate students at the University of Oregon, but no effort was made at social homogeneity. Some of the interviewers were non-Caucasians, some were females, and some were not students. A fortunate, but unplanned, development was that two of the interviewers were fluent in Spanish. This made it possible to interview Mexican-American and Puerto Rican trainees whose lack of command of the English language would otherwise have prevented their inclusion in the study. The variability of the social characteristics of the interviewers undoubtedly had some effect on the interviews, but no attepmt was made to gauge this effect. It was our impression, however, that without non-Caucasian interviewers we would have been less apt to secure the cooperation of the non-Caucasians in the sample.

The interview schedule was derived in large part from research done previously by the chief investigators on college undergraduates and youth in early adolescence. Before its use in the present pre-study, the interview schedule was extensively pre-tested on selected samples of job corpsmen and numerous revisions made to help insure that the questions were phrased in language understandable to youth lacking educational advantages and that the terms used were not biased toward middle-class goals and values. In addition, an attempt was made to remove all items that might threaten the job corpsmen by unnecessarily reminding them of their past failures in life or their present anxieties. Finally, attention was given to the problem of keeping the content and tasks in the interview sufficiently varied to maintain the attention of the respondents over the forty minute period required for the interview. How successful we were in these steps is a matter for conjecture, but in the majority of cases the interviewers reported that interviews went smoothly and fairly effortlessly--and this was a pronounced improvement over our experience in the initial pre-test where we had found ourselves talking over the heads of the trainees despite an effort to keep the content and wording simple.

A second source of data on the job corpsmen were administrative records that provided information on those who were severed from the training program.

For the University of Oregon freshmen, as we have already noted, two methods of collection self-report data were used. Approximately one half of the students (48) were interviewed, while the remainder (41) were given mass-administered questionnaires. The purpose for this was to have a basis for determining the relative efficacy of interviews and questionnaires for gaining information on occupational choice and its related factors. (Originally, a similar test had been planned for Tongue Point, but the initial pre-test quickly revealed that the low level of reading skills possessed by the trainees made the use of questionnaires unfeasible.)

The questionnaires and interview schedules used with the Oregon freshmen were abbreviated versions of the interview schedules used at Tongue Point, containing only those items and instruments for which there was a readily perceived need for comparative data. The questionnaires and interview schedules were identical in content and format and required approximately 20 to 25 minutes to administer. The same interviewers who had worked at Tongue Point also served as interviewers in this phase of the pre-study.

Control of Error

Despite the exploratory nature of the research, considerable attention was given to the reduction of observational and measurement error. One time-consuming step was to have the research staff make numerous one- and two-day visits to Tongue Point over a number of months prior to the time the main interviews were scheduled. It was hoped that by becoming familiar figures at Tongue Point we might reduce the antipathy youth from the lower class feel toward middle-class strangers (Cf., 5, pp. 323-325), particularly if those strangers are perceived as representing institutionalized authority--as researchers from the University of Oregon might be. A related purpose of these visits was to familiarize the interviewers with the surroundings in which they would be working and to make them more comfortable in dealing with youth coming from lower-class backgrounds quite different from their own. While the latter aim was achieved, it is difficult to judge how successful we were in breaking down the defensiveness that the trainees might have had about talking openly and candidly in the interview situation. It is certainly quite clear that with enough money and time a more effective step would have been to have had the interviewers stay at the Center for a month and participate freely in its activities before conducting interviews.

Other steps taken to control error involved the double coding and keypunching--with independent verification--of all data processed for computer analysis. In addition, careful selection, training, and supervision of personnel was undertaken to avoid as much as possible the pitfalls of "hired hand research" about which Roth has warned. (47)

Results

Social Differences between Job Corpsmen and Oregon Freshmen

Crucial to the validation effort is our premise that job corpsmen and University of Oregon freshmen differ markedly in their background, experiences, and outlook on the future. Though no one is likely to question this premise, still it may be instructive to examine the magnitude of the differences involved.

Effects of Social Selection. Table 1 compares selected social characteristics of these two groups. For this comparison, data on the job corpsmen have been taken directly from the pre-study interviews; but due to the abbreviated interview schedules used in the Oregon phase of the pre-study, background data on this particular sample are not available. Instead, it has been necessary to rely on questionnaire results from an earlier study of a probability sample of freshmen entering the University of Oregon in the fall of 1961. (15) Since the questionnaire for the earlier research served as the prototype for the present pre-study, the information collected is fully comparable to that obtained on the job corps trainees. Moreover, the information is sufficiently factual that it should not be sensitive to the effect of relying on questionnaires rather than interviews for data collection.

The results in Table 1 reveal pronounced regional differences between the two samples. Oregon freshmen in the main come from the Far West, with 74 per cent being Oregon residents. In contrast, only one out of six trainees at Tongue Point are from the Far West--a finding that is not unexpected since trainees in the program were recruited on a national rather than a regional basis.

A second, and again anticipated, result is the striking dissimilarity in the social backgrounds of these two groups. Oregon freshmen are a predominantly white, middle-class group who come from stable homes in which both parents are present. While only 39 per cent of the students report having at least one parent who has graduated from college, still in the majority of cases at least one parent has been to college. The middle-class status of the families is further reflected in the occupations held by the fathers. Most are gainfully employed in white-collar occupations that for the large part fall at the middle-range of occupational prestige, although a minority of the fathers

(21 per cent) are employed in blue-collar positions. In almost half of the homes, the mother holds a part-time or full-time job that takes her away from the household during the day--usually to a job where she is employed in a secretarial, semi-professional, or professional capacity.

By contrast, the job corpsmen are a racially mixed group who in large measure come from lower-class backgrounds--a fact that reflects the special disadvantage at which minority groups find themselves in today's society. The usual correlation between family disorganization and low social status is very much in evidence in this sample. Fifty-six per cent of the trainees come from homes broken by death, divorce, separation, or desertion. As also would be expected, the educational attainments of the parents are low. Only a relatively small minority have completed high school, and even fewer have ever been to college. It is not surprising, therefore, to find that the fathers of most of the trainees (72 per cent) are in blue-collar jobs--usually involving unskilled and semi-skilled work--and even this figure underestimates the total since 14 per cent of the trainees did not know what kind of work their father does. The mothers of the job corpsmen are a little less likely than mothers of Oregon freshmen to be working outside the home, but 71 per cent of the mothers who are working are employed in blue-collar occupations that require little skill or training.

Not surprisingly, the educational attainments of the job corpsmen fall far below those of the Oregon freshmen. With but one exception, none of the trainees has graduated from high school, while the majority (59 per cent) have never attended high school.

Besides going farther in school, the Oregon freshmen also appear to have found it a more relevant social experience. Sixty-nine per cent of the freshmen, for example, report having taken an active leadership role in the extracurricular world of high school life, a fact indicative not only of their extensive involvement in school activities but also of the social rewards they were able to gain from their participation. Moreover, their experiences in high school are seen by them as having had a significant bearing upon their future life decisions regarding college and work. Seventy-seven per cent of the Oregon students report that their decision to go to college was importantly influenced by persons or experiences connected with the high school, and 75 per cent report having been similarly influenced in deciding upon their future occupational plans.

No direct effort was made to assess the degree to which the job corps trainees had been involved in the extracurricular programs at the schools they had attended, but the comments they volunteered indicate that this involvement was at best minimal. Consistent with this is the fact that their prior school experiences had relatively little influence on either their decision to enter the job corps or on their thinking about their occupational plans. This does not, however, imply that they were unaware of the need for having an education in today's technological society. In fact, eight out of ten of the job corpsmen reported that graduating from high school is something that is "very important" to them, and 60 per cent expressed the hope that they would eventually graduate from high school or get its equivalent through a G. E. D. certificate.

Outlook on the Future. That these differences in background and experiences are not without implication for the way in which these youth view their future is shown by data presented in Tables 2 and 3. For the latter analysis, use has been made of the interview data collected from the Oregon freshmen in the pre-study.

Taking Table 2 first, we find that choosing a job is but one of a network of life decisions confronting both trainees in the job corps and college freshmen, but one that appears to be a matter of more pressing concern to the trainees. Seventy-eight per cent of the latter, compared to 57 per cent of the Oregon freshmen, report having seriously thought about the kind of work they want to do when they start working--more, so far as the trainees are concerned, than have thought about going to college, getting married, owning their own home, or owning a new car. Moreover, at this point in their lives, the trainees are more likely than the Oregon freshmen to be preoccupied with the question of what their occupational future holds for them. Two out of three job corpsmen indicate that this is a matter they think about frequently--twice a week or more--while only 39 per cent of the freshmen at Oregon report this to be the case. Further evidence that work is more a matter of direct concern to the trainees is suggested by the finding that 96 per cent of them indicate that it is "very important" to them to have a steady job, a response given by only 67 per cent of the Oregon freshmen.

That these findings are obtained is not too surprising. The trainees at Tongue Point have already encountered the frustrations of trying to carve out a living without possessing the requisite training or skills for doing so. For most of the Oregon freshmen, the task of seeking a full-time job still lies in the future, and when they do so it will be from a more favored vantage point. This difference in the status circumstances of the two groups undoubtedly has an important bearing on why the trainees at Tongue Point have a more restrained attitude about the feasibility of attaining such life goals as going to college, getting married, owning your own home, owning a new car, and getting the job you want to do. In the four instances where comparisons are possible, the trainees are consistently more likely than the Oregon freshmen to rate the chances of realizing these goals as only fair or poor. Yet, it is also important to note that there is only one area where the trainees express strong doubts about the feasibility of these goals; and this, quite realistically, concerns their chances for going to college. Thus, with this one exception, the mood of the job corpsmen regarding the future might better be described as one of tempered optimism rather than one of outright pessimism.

Table 3 offers further details on how these youth view the future. When confronted with the task of specifying what kind of work they want to do, job corpsmen are as likely as Oregon freshmen to indicate that they know what their goals are and to phrase their answers in terms of specialized occupational titles rather than in terms of broad fields or areas of work. Moreover, their answers suggest that their work goals are no more likely to be a product of spur-of-the-moment decisions than are the work goals cited by students at Oregon. Yet, despite these similarities, it is also apparent that the two groups differ fundamentally in their levels of occupational aspirations. While the majority of Oregon freshmen set their sights on very high status occupations, as measured by Hollingshead's occupational prestige scale (29), the majority of trainees at Tongue Point choose occupations scored as low in prestige on the same scale. Just as importantly, the modal levels chosen are so far apart that there is relatively little overlap in the status aspirations of the two groups. As such, these findings are consistent with the extensive data from the stratification literature which show that youth from lower socioeconomic strata do not aspire to the same levels of occupational success as those from more favored backgrounds. (Cf., 49) Nevertheless, as Empey's work suggests (16), evidence of differences in absolute levels of aspiration does not necessarily signify a lack of ambition on the part of those coming from the lower strata, for their goals may still be relatively higher than the occupations held by their fathers--and, thus, if realized, would mark an improvement over their past status circumstances. This is precisely the case with the present subjects. Though the trainees at Tongue Point do not aspire for middle-class occupations, they do aspire for skilled blue-collar jobs which, if attained, would represent a decided improvement over their father's occupational position. Therefore, when compared to their father's occupational attainments, their occupational goals reflect an ambition to improve their lot in life even though these goals are not commensurate with those held by youth coming from middle-class backgrounds. Quite clearly, then, there is a need to consider the relative as well as the absolute level of occupational aspirations if we are to understand the job corpsmen's orientation to the world of work. Once this is done, we are then in a position to account for the otherwise incongruous fact that even more job corpsmen than Oregon freshmen clearly expect to have a job better than their father's (79 per cent vs. 54 per cent).

Summary. The findings detailed so far bear out the premise that these two groups have encountered widely different experiences in their formative years, experiences that have led these youth to develop quite disparate profiles of aspirations and expectations about what the future holds in store for them. The task still remains to determine whether the morphological categories developed for the pre-study provides an empirically effective scheme for analyzing the criteria these youth use for choosing (or rejecting) occupational alternatives.

Morphology of Occupational Choice Findings (First Test)

The first test of the morphology involved its ability to discriminate between groups known to have different perspectives of their future occupational roles. For this test, a direct assessment was made of (1) the criteria job corpsmen and college freshmen used for considering occupations that they plan to enter--or are thinking about entering--to be "good jobs" and, conversely, (2) the criteria employed for rejecting jobs they already know they do not want.

The distribution of findings for the main MOC categories is presented in Table 4, while a more detailed breakdown by the 27 MOC elements is presented in Table 5. In both tables, separate analysis has been made of the choice and exclusion data.

Examination of these tables reveals that youth from both groups are able to report in considerable detail their considerations for rejecting as well as choosing jobs--although in both cases, use of the exclusion process is somewhat less in evidence. At Tongue Point, 94 per cent of the trainees are able to specify what kind of work they want to do and to offer reasons for their choices, while 72 per cent are able to specify particular occupations they have rejected as being unsuitable for them and to report their rationale for having done so. At the University of Oregon, comparable results are obtained: 98 per cent of the freshmen are able to indicate what job choices they have made and to report their reasons for these choices, while 77 per cent are able to do so for jobs they have excluded from consideration. Thus, these findings lend support to our premise that occupational decisions are shaped by a process of progressive exclusion as well as by a process of progressive choice.

Of equal relevance is the wide range of criteria that youth in the pre-study draw upon in making occupational decisions. In part, this is evidenced by the fact that all four of the main MOC categories are employed by at least a sizable minority of the respondents for expressing their reasons for reaching occupational decisions, although, of course, it is not true that each and every person does so. The one category that might at first glance appear to constitute an exception is that of Extra-Role Considerations. As Table 4 shows, this category has not been widely used by either group. However, there is very little overlap between positive and negative choices by persons reporting this category, so that the findings have underestimated its total use. When a count is made of the total number of times it is used for either positive or negative choices rather than for each separately we find that 22 per cent of the Oregon freshmen and 4 per cent of the trainees in the job corps take extra-role considerations into account in reaching occupational decision.. While far from a majority response, still it occurs frequently enough to merit its continued inclusion in the morphology--particularly since the category proves to be highly diagnostic of differences in background.

Further evidence that a wide range of criteria govern occupational decisions is provided by the more detailed results in Table 5. With the single exception of adventure--which no one mentions--all the elements in the morphology are given some expression by youth in the pre-study. Still, there are a number of elements that are cited infrequently. These are: leadership, responsibility, duration of job task, fringe benefits, and schedule of payments. The relative infrequency with which they have been used suggests that the morphology in its present form may have been overelaborated beyond necessity. However, before a decision to this effect is made, it would seem desirable to have further evidence for doing so--evidence derived from a much broader sample of youth than that relied on in the present pre-study.

The central finding, so far as the validity of the morphology is concerned, is that the two groups of youth are revealed by this method of analysis to have markedly different orientations to the world of work. One basic area in which such differences are found is in the extent to which occupational decisions are governed by considerations of the intrinsic features of the work task. As can be seen from the tabulated results, freshmen at the University of Oregon are far more likely than the job corps trainees to be seeking work in occupations that provide them a chance for self fulfillment and at the same are more apt to be rejecting those occupations which do not offer them this avenue of satisfaction. An important facet of this finding is the contrastingly different emphasis placed on the intellective aspects of the work role. It is rare for job corpsmen to indicate that it is important for them to have a job that offers a creative challenge or a chance for working with ideas. For college freshmen, on the other hand, this is a matter of considerable concern, and is particularly an important factor in their deciding upon what jobs they do not want to take. Similarly, college freshmen are more apt to be concerned with the question of how stimulating their future work will be. This is an especially salient consideration in their rejection of occupational alternatives, so that unlike the job corps trainees they are likely to rule out as undesirable for them jobs that appear to be dull and routine.

This does not signify that the trainees at Tongue Point are completely insensitive to the need for finding satisfaction in the work role. They are as concerned as college students in obtaining work which interests them and are far more concerned with what might be termed the mundane details of the work task. Here, a major issue is the conditions under which work takes place, whether it is dirty, noisy, unsafe, or otherwise unpleasant. The results show it is jobs having these unpleasant work conditions that they wish to avoid. And here may lie a fundamental dilemma that socially underprivileged youth face in finding suitable employment; namely, that the jobs open to individuals with their training and skills are for the large part jobs they openly reject for having unsuitable work conditions.

The results reveal two further ways in which the college freshmen depart from the job corpsmen in their orientation to work. One, as we have already noted, is the greater extent to which college students take extra-role considerations into account in making occupational decisions. The second is the extent to which self appraisal enters as a factor in these decisions. As Table 4 shows, college freshmen are more likely than the trainees to mention having considered their own ability, experiences, training, and personality in reaching decisions about occupational goals--and particularly in rejecting occupational alternatives.

One area where differences in orientation might be anticipated, but none was revealed, is in the importance attached to the extrinsic rewards of work. Of particular interest here is the factor of security, which others have found to weigh heavily in the job decisions made by persons at the lower levels of the class structure. (Cf., 4, 5, 30, 37, 40) The morphology data do not bear out this contention. If anything, the results show a greater emphasis on occupational security by youth from the middle class than by those from the lower class.

In conclusion, the results of the first test of the morphology indicate that:

1. The morphology does have a wide range of empirical applicability.

2. It is a useful device for ascertaining class-linked differences among youth in their orientation to their future occupational roles.

3. The differences obtained are more readily revealed by what youth say about the occupational goals they reject than by what they say about the occupational goals they choose.

Morphology of Occupational Choice (Second Test)

That the morphology can be used to differentiate between job corpsmen and college youth coming from entirely different backgrounds provides only a limited test of its validity. A far more critical test is whether it can be used to predict differences in behavior among youth coming from the same socioeconomic circumstances. A strategic group for such a test is provided by the 20 job corpsmen out of the 113 initially interviewed (for whom morphology data were available) who terminated their training at Tongue Point within two months from the time they first started. Their abrupt departure from the program suggests that as a group they may be having serious difficulty in finding work to be a meaningful activity. If this hypothesis has merit--and certainly others with equal plausibility could be advanced--then it should be reflected in the reasons given by the drop outs for choosing (or rejecting) occupational alternatives. (It should be remembered that the data were obtained before the boys made their decisions to leave the training center).

The results from the morphology are presented in Table 6. They reveal that a systematically different pattern of criteria are used by the trainees who turn out to be early drop outs as compared to the trainees who continue in the program. As a group, the drop outs are much less likely to be seeking work in which they can gain some sense of self fulfillment. They appear, instead, to be operating more on the opposite principle of avoiding jobs which they do not like to do or in which they might encounter unpleasant work conditions. Seemingly, they are in the position of not knowing what they want to do, but of knowing what they do not want to do

There is also a possible suggestion from the findings in Table 6 that the early drop outs may have a more ego-centered attitude to work. This is suggested by the tendency for the early drop outs to be more preoccupied with the status rewards of the job than with the security the job offers. This represents a reversal of the priorities assigned these rewards by other trainees at Tongue Point. It is also a reversal of the usual priorities assigned these rewards by persons who comprise the stable segment of the working class. (40)

Thus, the findings from the second test provide further evidence of the predictive utility of the morphology. How useful it will prove to be in other kinds of settings with other populations remains a question for future research.

Social Time Perspective Scale Findings

Table 7 shows the utility of the Social Time Perspective Scale for differentiating among (1) job corps trainees and an ad hoc sample of University of Oregon students and (2) early drop outs from the job corps program and trainees who remained in the program beyond the first two months. The use of an ad hoc rather than a probability sample of students for this part of the analysis is the kind of compromise one is sometimes forced to make in exploratory research. In the present case, it was forced on us by the lateness of the solution to the problem of scaling the time perspective data. Enough time did not remain for testing the instrument on a probability sample of students--although such a test is now underway. Instead, data for a provisional intergroup comparison was obtained from male students enrolled in an undergraduate sociology class. As a consequence, the results presented can only be considered illustrative. Still the differences obtained are sufficiently striking to give promise that the Social Time Perspective Scale is capable of measuring class-linked differences in modes of temporal orientation and that such differences as are revealed do have significant behavioral consequences.

Specifically, the findings reveal that the trainees at Tongue Point are not accustomed to thinking in sustained fashion about what the future holds in store for them. With but few exceptions, they found the task of responding to the time perspective instrument a difficult one. Even with patient probing by the interviewers, most trainees were not able to think of seven future events. On the average, they reported only 3.64 future events, a figure that falls far below the mean of 6.24 events reported by the Oregon students.

It is also apparent from the findings in Table 7 that the trainees are less future oriented than the Oregon students. While most of the job corpsmen do include in their responses references to getting a job and getting married, the majority do not go beyond these events when reporting on the future, and relatively few project far enough ahead in time to be thinking about what would be happening to them at the intermediate or later stages of the adult role. Most Oregon students, on the other hand, include in their responses references to events in the early adult role (i.e., parenthood and early work events); and many make reference to events from the intermediate and later stages of the adult role (e.g., seeing their children grow up).

If the most distant life cycle events reported are scored on a 9-point scale, the mean social time perspective score for the trainees is 4.27, as compared to a mean of 6.41 for the Oregon students. (When death is excluded as a category, the mean social time perspective scores for the two groups are 3.83 and 5.28.) In general, then, the trainees at Tongue Point score about two adult life cycle levels below the Oregon students in the temporal perspective of the future.

Some evidence that their more abbreviated perspective of the future is not simply an artifact of the trainees having reported a more limited number of responses is provided by the findings in Tables 8 and 9. When asked to specify how frequently they have been thinking about what they will be doing at four future age levels, the trainees indicate that they have given considerably less thought than the Oregon students to what will be happening to them in the early and intermediate adult years (i.e., ages 20, 30, and 40). In addition, the trainees appear to have a shortened conception of middle age and to some extent of old age. Approximately half of the job corpsmen define as middle aged persons who are 35 and under. At Oregon, only 19 per cent of the students do so. There is much less of a difference between the two groups in their definition of old age, but there still is a tendency for more job corpsmen than Oregon students to classify as old persons who are 55 and under. The consistency between the results in Tables 8 and 9 and those in Table 7 suggests that the Social Time Perspective Scale is, in fact, measuring the extent to which these youth are future oriented.

That these differences in temporal perspective are so readily evidenced suggests than an important factor contributing to the difficulties that have confronted the job corpsmen may be their inability to adopt a long-term view of their plans for the future. While no direct test of this hypothesis is possible with the present data, some indirect evidence is provided by the trainees who fail to stay in the program for more than two months. As Table 7 shows, these early drop outs are even more likely than other trainees to be taking a short-term view of what the future holds in store for them. The average social time perspective for the early drop outs is 3.93; for survivors, it is 4.45. (When death is excluded as a category, scores of 3.38 and 3.93 are obtained). That those who survive in the program have a longer time perspective suggests that this factor may be related to the adjustment trainees make to the demands of the program--and by implication to the demands that will be made of them if they are to succeed in having a stable work career.

Findings on Deferred Gratification

For the analysis of the deferred gratification hypothesis, a comparison was made between the willingness of job corpsmen and freshmen at the University of Oregon to forego immediate social and psychic rewards for gaining (1) desired occupational goals and (2) desired educational objectives. The findings from these analyses are presented in Tables 10 and 11, respectively.

Quite a different pattern of results emerges from the two sets of data. On the one hand, the data on gratification deferral for gaining occupational objectives reveal no systematic tendency on the part of the trainees at Tongue Point to be unwilling to postpone immediate rewards. Of the seven items on the check list, there are only two where the answers are consistent with the deferred gratification hypothesis. These are: (1) taking a job you are not sure will last and (2) moving away from your family and relatives so you could only see them once a year. And of these last two items, there is some basis for considering the first one an invalid measure of gratification deferral. It would, instead, appear to be measuring the degree to which respondents are willing to risk job security. While a reticence to risk job security may have significant bearing on the occupational choices made by lower-class youth, it may be misleading to equate this reticence with an unwillingness to defer gratifications.

In contrast, the findings from Table 11 reveal a general pattern of unwillingness on the part of the trainees to postpone immediate rewards in order to get the education they want. This is particularly the case in their unwillingness to: (1) move away from their family and relatives so they could only see them once a year, (2) live on a tight budget for several years, and (3) go without having their own car for several years. Moreover, on three of the remaining items, their answers are consistently in the direction of the deferred gratification hypothesis--although the results here are not so striking.

The fact that the items for the deferred gratification check lists were chosen so as to minimize the possible confounding effect of a long-term time perspective suggests that the job corps trainees are doubly handicapped in their orientation to work. They are hampered, in part, by an inability to take a long-term view of the future which would make effective planning possible and, in part, by being unprepared to sacrifice short-term rewards in order to get the education that would prepare them for the world of work. This conclusion does not necessarily imply that gratification deferral and a future time perspective are analytically unrelated. Perhaps if the trainees were more capable of taking a long-term view of the importance of education in their future, they might then be more ready to sacrifice immediate rewards in order to get the education they need. But our guess is that such deferral would only occur if they perceive both their educational and occupational objectives as being feasible--and, thus, of having some hope of gaining future rewards to compensate for the more immediate rewards they would be sacrificing.

Comparability of Interview and Questionnaire Data

With the heavy reliance being placed on self-reported information, it was important for planning future research operations to determine whether questionnaires are as effective as the more costly procedure of face-to-face interviews for collecting data on occupational choice and its related factors.

Our experiences during the initial pre-tests at Tongue Point readily confirmed our suspicion that questionnaires have little utility for research with socially underprivileged youth who have not had the benefits of much formal education. The limited verbal and reading skills possessed by the trainees simply ruled out any possibility of using questionnaires with this group--and, by implication, with other groups similarly lacking in educational advantages.

In light of these results, attention was directed to the issue of the comparability of interview and questionnaire data. What would be the effect of interviewing those youth who lack the educational background to fill out self-administered schedules, but giving mass-administered questionnaires to the remainder? Such a step would permit considerable research economies, but to do so would only make sense if the shift to a different procedure for data collection did not affect the content or quality of the information in any major way.

Examination of the available literature revealed surprisingly little hard data on the comparability of interview and questionnaire results, and what findings were available tended to be varied, inconclusive, and often contradictory. (34) To fill this gap in our knowledge, a special pre-study was made of the relative efficacy of interviews and questionnaires for collecting data on occupational choice. For this pre-study, two separate random samples of freshmen at the University of Oregon were taken, using identical sampling procedures. One sample was interviewed by experienced interviewers from the Center for Research in Occupational Planning; the other was given a mass-administered questionnaire that paralleled the interview schedule in form and content. Therefore, except for the variation in technique of data collection, there were no differences between the two groups in selection or treatment. The comparability of the procedures, plus the fact that all the questions used had been carefully and extensively pre-tested, fully led us to expect only negligible differences in the results obtained.

Procedural Effects. Selected findings on variables relevant to the larger research objectives are presented in Tables 12, 13, and 14. Even a casual examination of these results dispels the faith we had in the comparability of interview and questionnaire data. In general, the findings show:

1. The two procedures yield consistently different results, differences which are so substantial that, if we did not know otherwise, we would be tempted to conclude that two different populations of college students had been studied.

2. In 15 of the comparisons reported, there is greater variation within the Oregon samples as a result of the differences in technique used than there is between Oregon and Tongue Point. In other words, the method of data collection has as much, or greater impact, than extreme differences in social background on the results which are obtained.

3. The differences that result do make a difference. Almost without exception, every conclusion previously reported about similarities and differences between trainees at Tongue Point and freshmen at the University of Oregon would have been negated or reversed if mass-administered questionnaires rather than interviews had been used for collecting comparative data from the Oregon students.

These are very sobering findings not only in terms of their implications for the present research but also for their implications about social science research in general. Quite clearly, in evaluating the rather diffuse literature on occupational choice one must pay attention not only to what was asked and the way the question was formulated, but also to the method by which the data were collected.

Sources of Variability. Preliminary analysis of the sources of variability in interview and questionnaire data suggests that there are three factors which, separately or in combination, may help account for the differences obtained. These are:

1. the effect of having the interviewer serve as an intermediary in the data collection process,

2. the lesser degree of motivation of respondents to fill out

a questionnaire than to be interviewed, and

3. the stimulus effect of the interviewer.

The part that each of these factors plays is discussed below.

One obvious difference between the interview and the questionnaire is the presence in the interview of a trained and experienced person to ask questions and record information. The presence of the interviewer is particularly important with open-ended questions, since it is usually his task to screen the answers to insure both that the information is sufficiently detailed to permit effective coding and that the information is complete. By this on-the-spot editing of the respondents' answers, the interviewer provides not just "better" information but also more codable information.

It is the absence of such a built-in screening process that may well contribute to the consistent pattern of "underreporting" observed in Table 12 for questionnaire data on the Morphology of Occupational Choice. As an example, take the student who indicates that the reason he considers college teaching to be a good job is that "It is rewarding for me." While he may consider this an adequate answer, it provides little information for coding unless--as was true in the present case--the interviewer probes to find out that the respondent's reason for considering this a rewarding occupation is "because you are able to pursue your intellectual and cultural interests." And even with this added detail, the answer is not necessarily complete. In the present case, an additional probe resulted in "the security it offers" being mentioned as a further reason.

A second factor that may contribute to the underreporting on the questionnaire is that persons apparently are less motivated to take a questionnaire than to be interviewed. At least, the possibility of this is suggested by data about the willingness of the sample subjects to take part in the present pre-study. Despite the fact that students being interviewed had to walk six or seven blocks across campus while questionnaires were administered in a building only a block or so from the dormitories where the students lived, students being given questionnaires were more reluctant to participate in the research. Forty per cent of those in the questionnaire sample, as compared to 17 per cent of the interview sample, were "late respondents" (i.e., they had not participated in the research at the end of the week the study was scheduled). Similarly, 21 per cent of the questionnaire sample, as compared to 9 per cent of the interview sample, ended up as non-respondents. (See Table 15.) If, as these findings suggest, persons are more reluctant to take questionnaires than interviews, it also seems possible that those who do come in and take questionnaires may be less motivated to provide as detailed and complete answers as persons being interviewed.

So far our concern has been with the underreporting in answers to open-ended questions. A similar pattern of underreporting can also be observed for answers to forced-choice questions, especially where the content touches upon dominant middle-class values. A case in point is the answers to the two check lists on deferred gratification, where a positive answer is in keeping with the middle-class value that youth should be willing to sacrifice immediate pleasures in order to be able to gain future educational and occupational goals. On 10 of the 12 items comprising these check lists, interviewees are more likely than questionnaire-takers to indicate their readiness to forego the reward in question. On the remaining two items, there are no differences between the two samples, so that in neither case is there a reversal of the trend. This consistent tendency of interviewees to report more socially desirable responses suggests that the presence of an interviewer, who listens and reacts to everything the respondent has to say, may have had a systematic effect on the information that is provided. Even without realizing it, the interviewee may feel constrained to give answers that put him in a favorable light. Further support for this interpretation can be found in answers made by the interviewees to other questions in the research which frequently--but not invariably--are in the direction of socially accepted values.

In summary, it is possible to account for the difference between the interview and questionnaire data, but the explanations presented do not provide a basis for favoring one procedure over the other. Both have special limitations that qualify their use. In cases like that of the Tongue Point study, however, where one of the groups to be compared must be interviewed, it is important that the other be interviewed also. We cannot substitute the questionnaire technique.

Discussion

The present pre-study was undertaken as a first step in developing an operationally definable set of procedures for inventorying the criteria youth use in reaching occupational decisions. Since the chief concern was with the structure of what is chosen (or rejected), this scheme has been designated the Morphology of Occupational Choice. One major asset of this approach is the simplicity of the procedures used for eliciting MOC data. This, as we have shown, gives it a wide range of empirical applicability. A second major asset of the morphology is that it takes into account two sets of considerations that are often overlooked in research on occupational choice; namely, (1) that factors other than the intrinsic characteristics of the job play an important part in governing decisions youth make about work and (2) that much which is relevant to occupational decisions occurs through a process of exclusion rather than through a process of choice.

It is these twin features of the morphology--its empirical and analytical scope--that give it a distinct advantage over other procedures available for studying factors that enter into the occupational decision process. This can be easily illustrated by Rosenberg's check list of occupational values (45, 46), which has proven extremely effective for discerning behaviorally relevant differences among college students in their orientation to the world of work (13, 21, 46) and which appeared at first to provide just the kind of information needed for the morphology. However, it soon became evident from the pre-study data that the language used for phrasing the value items in the check list often was beyond the comprehension of persons who lack the educational advantages and the cognitive abilities of college undergraduates. In addition, it was evident that the scope of the check list was too narrow. The original 10 value items needed to be expanded if they were to encompass the full range of decision-making criteria employed by youth in our society for making occupational choices. While it would be a relatively simple matter to expand the check list so that it covered a broader scheme of values, this still would not alleviate a third problem; namely, that the value categories would only be relevant for studying criteria used in making occupational choices. They would not afford comparable information on the exclusion process. It is for these reasons that we finally found it necessary to abandon Rosenberg's approach to studying occupational values and to substitute instead the present system of collecting and analyzing morphological data.

While the limited tests made with the morphology have demonstrated its predictive utility, there still are a number of changes which might be made to improve its effectiveness. One is to include in the questions eliciting information on positive choices a probe as to which of the criteria cited is the most important, if more than one criterion is mentioned. At present, it has been necessary to equate frequency of citation with perceived importance. While the two may in fact be correlated, it would seem desirable to assess them separately. A second change that might be introduced would be to include a direct assessment of the criteria relevant for choosing "an ideal job" as well as a direct assessment of the criteria for choosing the job one actually plans to enter. The latter change would be consistent with the practice now commonly found in stratification research of studying "levels of aspiration" as well as "levels of expectation." (42) Moreover, by comparing the two sets of responses to determine what criteria are omitted when answers shift from the ideal to the real, we might be in a position to judge the kinds of compromise youth from different backgrounds are willing to make in reaching occupational decisions.

There are also several changes that could be introduced to improve the processing and analysis of the MOC data. One would be to combine the data for positive and negative choice so as to be able to calculate the total number of elements of choice individuals--or categories of individuals--take into account when thinking about their work future. In this way, it would be possible to ascertain whether there is a patterned effect by age, sex, or social background on the number of MOC elements that are considered by youth. A second modification is one that has already been suggested. This is to break down the general MOC category of assessment of the opportunity structure into its component parts. This would make it possible to determine whether the assessment which is made focuses on the opportunity for advancement or the opportunity for entry. The failure to do so in the present analysis may have concealed some effects of class background that are significant for interpreting differences among youth in their orientation to work.

A word is also in order about the special emphasis which has been placed on the Morphology of Occupational Choice. While it reflects the focus of the present pre-study, it should not be taken to mean that we do not consider other facets of the decision process relevant. There are, we realize, many other dimensions of orientation (such as temporal perspective and realism) that have bearing on the plans youth make about their occupational future; and these would have to be included in the research design of the final study that is being contemplated. It is also clear that at this point consideration would have to be given to the objects of choice as well as the criteria of choice. Without collateral information on such factors as the status level of the goals chosen, the degree of specificity with which occupational goals are defined, and the stability with which they are held over time, we would have very little basis for drawing conclusions about the way occupational choices are shaped and developed over time. Nevertheless, as we have tried to point out, it is necessary in the analysis of the decision process to distinguish between the criteria of choice and the objects of choice; and in our judgment it is the criteria of choice that provide the basic information needed for understanding the social incentives that govern the occupational decisions which youth make.

Finally, there is need to realize that even if we were in a position to understand how youth develop occupational goals, there still remains the further task of determining the factors which facilitate, impede, or negate the chances these youth may have of implementing their goals. Here, we expect that attention will need to be directed to persons in the social structure who can play an instrumental part in helping youth utilize their personal and social resources so that they can realize their occupational ambitions. (42) To ignore the problem of implementation would not only leave a significant gap in our theoretical knowledge but it would also create a hiatus in whatever applied programs might be developed to help young persons in our society cope with the occupational decisions facing them. From a practical standpoint, there is little advantage to establishing guidance programs to stimulate ambitions to pursue particular work goals unless a collateral effort is made to help insure the possibility that these goals can be realized.

Implications

Whatever implications might be drawn from this section of the final report must of necessity be qualified by the highly tentative nature of the results presented. The pre-studies do not represent a finished research effort, nor was that their intent. They were conducted for the purpose of gaining provisional support for concepts and methods that might be incorporated into a future nationwide study of the occupational decision process that is envisioned.

So long as these qualifications are kept in mind, it is possible to point to several potential implications of the findings detailed above. These are:

1. The Morphology of Occupational Choice provides a useful accounting scheme for facts on occupational choice which has a wide range of empirical applicability. It would appear to be particularly useful for discerning the varied modes of orientation that youth from different socioeconomic backgrounds have to the world of work.

2. The morphological approach that has been adopted would cast doubt on the adequacy of decision-making models of "occupational choice" that are based on the assumption that choices are made among two or more positively valued job alternatives. This assumption, we feel, ignores two relevant empirical aspects of the choice situation; namely, that factors outside the job, itself, are taken into account and that many important decisions which have been made are of a negative rather than a positive nature.

3. By extending the sectors of choice which are of analytical relevance, the morphology provides a basis for systematically accounting for what some investigators have chosen to view as the "accidental" factor in occupational choice. (Cf., 56, pp. 205-207) Instead of being attributed to chance, these "accidental" decisions can be better conceptualized as the product of non-job decisions or of job exclusions--or both.

4. The focus of the morphology on the criteria of choice (or rejection) does not rule out analysis of occupational goals, but it does indicate that a distinction needs to be drawn between the criteria of choice and the objects of choice. The key consideration here is that both sets of factors may vary independently. Even though the criteria of choice may vary, the object of choice may remain constant; and, conversely, the object of choice may vary while the criteria of choice remain constant. For this reason, a properly designed inquiry into the occupational decision process would need to give attention to patterned changes in both the criteria and objects of choice.

Summary

As a first step toward carrying out an eventual research program on planned and unplanned aspects of occupational decisions made by youth in our society, a series of exploratory projects (what we have termed pre-studies) have been undertaken to develop and perfect concepts and methods that were needed for the larger study. In this and three remaining sections of the final report, we have tried to detail the results of these pre-studies.

A major task in the present pre-study was to develop a Morphology of Occupational Choice that would articulate the main sectors in which occupational decisions are made. Working both at the analytical and empirical levels, we have been able to identify four major sectors that serve as social incentives and influence the choices youth make of their future life work. These are: (1) the intrinsic features of the work task, (2) the extrinsic rewards of work (e.g., status and economic benefits), (3) the extra-role considerations that enter into occupational decisions (e.g., wanting to settle in an area near one's family), and (4) the perceived feasibility of the occupational goals. Each of these four sectors can in turn be differentiated into subcomponents, so that in its most elaborate form the morphology comprises 27 elements of choice. Detailed coding procedures for the morphology were developed, with parallel forms constructed for use with choice and exclusion data.

Two separate tests were made of the usefulness of the morphology for classifying the structure of what is chosen (or rejected) in occupational decisions. The first test involved its ability to reveal a systematic difference in the orientation to work of job corpsmen and college freshmen, two groups that have demonstrably different backgrounds, experiences, and outlooks on the future. Results of this test provided general confirmation for the morphology in its present form. In brief, the findings showed:

1. The morphology has a wide range of empirical applicability.

2. It is a useful device for ascertaining class-linked differences among youth in the way they view the world of work and the incentives it has to offer.

3. The differences that are obtained are more readily revealed by what youth say about work goals they reject than by what they say about the work goals they choose.

A second and more sensitive test of the pragmatic validity of the morphology was its ability to discriminate between trainees who drop out of the job corps program soon after entering and those who remain in the program. The morphology data revealed the early drop outs to have a characteristically different orientation to work, one which suggests that their early severance from the program may be traced to an inability to find meaning in work activity. The effectiveness of the morphology in this test situation was interpreted as further evidence of its validity and, thus, of its potential usefulness for research on the occupational decision process.

A significant by-product of the present inquiry was the development of a Social Time Perspective Scale that can be used for assessing the extent to which youth adopt a long-term view of the future. Comparative research on college freshmen and job corps trainees suggest that the time perspective data can provide an important clue to the difficulties lower-class youth encounter in developing effective occupational plans.

A final concern in the present report was with the methodological issue of the comparability of interview and questionnaire data on occupational choice and its related factors. Despite our expectations to the contrary, the findings revealed fundamentally different results are yielded by the two procedures. The differences are of such a magnitude that they rule out the possibility of the procedures being used interchangeably.

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APPENDICES

APPENDIX A

PUBLICATIONS AND PAPERS BY STAFF OF CENTER

APPENDIX A

Anderson, Richard Holmes, *Career Orientation and its Correlates Among College Women*, University of Oregon M. A. Thesis, 1967.

__________, and Ellis, Robert A., "Some Overlooked Dimensions in the Analysis of Career Choice Among College Women," paper read at Annual Meeting of Pacific Sociological Association, San Francisco, March 1967.

Ellis, Robert A., "Some Misconceptions about Occupational Choice," in Cathleen Quirk and Carol Sheehan (eds.), *Research in Vocational and Technical Education: Proceedings of a Conference*, The University of Wisconsin Center for Studies in Vocational and Technical Education, 1967, pp. 121-128.

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Endo, Calvin M., *The Efficacy of Parameter Estimates with Fallible Samples*, University of Oregon M. A. Thesis, 1967.

Finne, Mary Lou, *The Marginal College Student: A Study of Role Failure*, University of Oregon M.A. Thesis in progress.

Goldman, Theodore, *Occupational Development of Adolescence*, University of Oregon doctoral dissertation in progress.

Irle, Roger D. "Religious Groups as Language Communities," paper read at March 1967 meeting of the Pacific Sociological Association.

Jacobsen, Ralph Brooke, *Intrafamily Modes of Socialization: Theoretical Development and Test*, University of Oregon doctoral dissertation, 1968.

__________, *The Psychological Continuum Among Occupational Values: An Attempted Replication*, University of Oregon M.A. Thesis, 1966.

__________, Flygstad, Allan L., and Rodgers, Roy H., *The Family and Occupational Choice: An Annotated Bibliography*, Eugene, Oregon: Center for Research in Occupational Planning, 1966.

Appendix A continued.

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Johnson, Benton (ed.), *Unexplored Aspects of the Development of Occupational Goals of Youth: Summarizers' Reports* of the Conference on Unexplored Aspects of the Development of Occupational Goals of Youth, Eugene, Oregon: Center for Research in Occupational Planning, 1965.

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________ and Langford, Charles C., "Religion and Occupational Preference: A Study of High School Seniors," paper read at annual meeting of Society for the Scientific Study of Religion, Atlanta, Georgia, October 1967.

________ and White, Richard H., "Protestantism and Political Preference in the Corn Belt: Comment on Anderson's Paper," *Review of Religious Research* (in press).

Johnson, Bryce T., *Sex Differences in College Aspiration*, University of of Oregon M. A. Thesis, 1967.

Lane, W. Clayton, Ellis, Robert A., and Card, Douglas P., *Relative Efficacy of Interviewing and Questionnaire Procedures: An Annotated Bibliography*, Eugene, Oregon. Center for Research in Occupational Planning, 1966.

________ and Ellis, Robert A., "Social Mobility and Anticipatory Socialization," paper read at annual meeting of Pacific Sociological Association, April 1966.

Langford, Charles C., *Religion and Occupation: A Study of High-School Youth*, University of Oregon doctoral dissertation in progress.

Rodgers, Roy H., "The Occupational Role of the Child; A Research Frontier in the Developmental Conceptual Framework," *Social Forces*, 45 (December, 1966), pp. 217-224. Revised version of a paper presented at the Family Section of the Annual Meetings of the American Sociological Association, Chicago, August 1965.

________ and Jacobsen, R. Brooke, "Family Structure and Occupational Orientation," paper presented at the annual meeting of the Pacific Sociological Association, March 1967.

Appendix A continued.

__________ and Jacobsen, R. Brooke, "Intrafamily Consensus and Effective Socialization," paper presented at Family Section of the Annual Meetings of the American Sociological Association, San Francisco, August, 1967.

White, Richard H., "After the Protestant Ethic: Toward A Theory of Religious Influence," paper read at annual meeting of Pa-ific Sociological Association, March 1967.

APPENDIX B

CODING PROCEDURES FOR MORPHOLOGY OF OCCUPATIONAL CHOICE

APPENDIX B

GENERAL CLASSIFICATION OF CRITERIA

Column	Scale	Classification	
1	Cluster A	Does subject mention: Status . . . . 1 Other extrinsic rewards. . 2 Intrinsic features of work task . . . . 4 This category not mentioned . . . . 0 Not classifiable . . . . . . X No answer . . . . y	GEOMETRIC CODE

ELABORATION OF ITEMS FOR CLUSTER A

Status (1)	Other External Considerations (2)	Intrinsic Features of the Role Task (4)
Status Prestige Get ahead Be successful Better myself	Money Make good money Become rich Maintain a decent standard of living Earn a livelihood Fringe benefits Schedule of payments	Self Fulfillment Creativity Expression of talent, ability Challenging work Expression of interest Work with head, hands, tools
Respectibility A decent job	Security Steady work	Social Fulfillment Helpful or service to others Work with people Meet interesting people
		Power Considerations Autonomy (e.g., be my own boss) Leadership Responsibility

(continued on next page)

Appendix B continued.

General Classification of Criteria (cont.)

ELABORATION OF ITEMS FOR CLUSTER A, cont.

Status (1)	Other External Considerations (2)	Intrinsic Features of the Role Task (4)
		Stimulation Variety Travel Adventure
		Work Conditions Desirable conditions Good hours Safety Ease of work Duration of job task (e.g., no forced retirement)

Column	Scale	Classification		
2	Cluster B	Does subject mention:		
		Extra-role incentives	1	GEOMETRIC CODE
		Self Appraisal	2	
		Feasibility.	4	
		This category not mentioned. .	0	
		Not classifiable	X	
		No answer	Y	

ELABORATION OF ITEMS FOR CLUSTER B

Extra-Role Incentives (1)	Self Appraisal (2)	Feasibility (4)
Institutional Locus Indoor, outdoor work In large corporation	Self Appraisal Possess capacity Possess experience Possess training Possess suitable personality traits, (e.g., "I have the patience which that job requires")	Assessment of Opportunity Structure Openness of job market Availability of a sponsor Advancement possibilities Appropriateness of sex, age role
External Considerations Leisure time Time with family Choice of living area Opportunity for travel Benefits for family		

Appendix B continued.

SPECIFIC MORPHOLOGY CATEGORIES: POSITIVE CHOICE

NOTE: The code for columns 3 through 21 is as follows:

		GEOMETRIC CODE
S mentioned above item as a negative criterion of choice	1	
S mentioned above item as a positive criterion of choice	2	
S mentioned above item as a consideration but not as a positive or negative criterion of choice .	4	
S did not mention the above item	0	
Not classifiable	X	
No answer	y	

Column	Scale
3	CREATIVITY COMPLEX
4	EXPRESSION OF INTEREST IN WORK
5	WORK WITH HEAD
6	WORK WITH HANDS OR TOOLS
7	HELPFUL OR SERVICE TO OTHERS
8	WORK WITH PEOPLE
9	MEET "INTERESTING" PEOPLE
10	AUTONOMY
11	LEADERSHIP
12	RESPONSIBILITY
	NOTE: Responsibility implies a requirement for decision making and for accountability of the consequences of those decisions. For example, where the subject says that he doesn't want to be a foreman, it is not so much that he doesn't want control over others as that he doesn't want to make (and live with the effects of) decisions. Thus, responsibility is not the same as simply being in charge of others (which would be coded as leadership) nor is responsibility the same as having others dependent upon oneself (which would be coded as "service to others.").
13	VARIETY
14	TRAVEL
	NOTE: Traveling implies a minimum of inter-city travel.
15	ADVENTURE
16	DESIRABLE WORK CONDITIONS
17	GOOD HOURS

Appendix B continued.

Specific Morphology Categories: Positive Choice (cont.)

Column	Scale
18	SAFETY
19	EASE OF WORK
20	WORK SETTING
21	EXTERNAL CONSIDERATIONS

NOTE: The code for columns 22 through 24 is as follows:

Does the subject mention the above item?

No	0
Yes	9
Not classifiable	X
No answer	y

Column	Scale
22	DURATION OF JOB TASK NOTE: The phrase "duration of job task" has two referents: duration can refer to the fact that a job is seasonal, i.e., recurrent; or it can refer to the length aspect of the job, e.g., "there is no forced retirement."
23	FRINGE BENEFITS
24	SCHEDULE OF PAYMENTS

Appendix B, continued.

Specific Morphology Categories, Positive Choice (cont.)

NOTE: The code for columns 25 through 31 are indicated under each scale.

Column	Scale
25	STATUS

Did the subject mention status in the sense of:

High status (e.g., get ahead, be important, be successful).	1
Medium status (e.g., be respectable). . . .	2
Low or minimum status**	3
Status considered but not used as a criterion.	4
Status in the negative sense or rejection of status.	5
This category not mentioned	0
Not classifiable.	X
No answer	y

NOTE: **Use this category reservedly.

Column	Scale
26	ECONOMIC BENEFITS

Did the subject mention economic benefits in the sense of:

High economic benefits (e.g., good money, becoming rich).	1
Medium economic benefits (e.g., a decent income, a moderate wage, pretty good money)	2
Low or minimal level economic benefits (e.g., enough to get by on, earn a livelihood)**.	3
Economic benefits considered but not used as a criterion.	4
Economic benefits rejected as a criterion.	5
This category not mentioned	0
Not classifiable.	X
No answer	y

NOTE: **Use this category reservedly.

Appendix B, continued.

Specific Morphology Categories, Positive Choice (cont.)

Column Scale

27 SECURITY

Did the subject mention security in the sense of:

High security or just plain security 1
Medium security. 2
Low or minimum level security**. 3
Security aspects considered but not
used as a criterion 4
Security rejected as a criterion 5
This category not mentioned. 0
Not classifiable X
No answer. . . . . y

NOTE: (1) **Use this category reservedly.

(2) The benchmarks for this code are analogous to those found in columns 25 and 26.

(3) The phrase "there is always a need for a . . ." is coded as implying security (code 1), as well as an Assessment of the Opportunity Structure. If the term "always" (or its equivalent) is omitted from the foregoing phrase, then security is not implied.

28 REALITY TESTING

Did the subject engage in any reality testing in his response about work?

No, S did not exhibit any reality testing. . . . 0
Yes, S considered reality aspects but did
not use them as criteria. 5
Yes, S did exhibit reality testing 9
Not classifiable X
No answer. . . . . y

NOTE: Reality testing in the sense it is being used here consists of statements of self appraisal. Specifically, the S might say that he possesses the capacity, the experience, the training, or suitable personality traits (e.g., patience). He might also indicate that he does not possess any of the foregoing; this still would indicate reality testing in the sense of self appraisal.

Appendix B, continued.

Specific Morphology Categories, Positive Choice (cont.)

Column   Scale

29   ASSESSMENT OF OPPORTUNITY STRUCTURE

Did the subject exhibit any attempt to assess the opportunity structure?

No, S did not exhibit an attempt to assess
 the opportunity structure 0
Yes, S considered some aspects of the
 opportunity structure, but did not use
 them as criteria. 5
Yes, S did exhibit an attempt to assess
 the opportunity structure 9
Not classifiable X
No answer. y

NOTE: (1) Assessment of the opportunity structure in the sense it is being used here consists of statements about the probability of attaining his work objectives. For example, the S might refer to the "openness" of the job market, the availability of a sponsor (e.g., my dad is in this business), the possibilities for advancement, or the appropriateness of the sex or age role for him. Assessment of the opportunity structure can also be negatively phrased (e.g., the job is only open to people who are older than I).

(2) The phrases "there is a need for . . ." or "there is always a need for . . ." are coded as attempts to assess the opportunity structure.

30   UNCERTAINTY

In response to the question, "do you know what kind of work you want when you start working?" the subject answered:

No 0
Not sure 5
Yes. 9
Not classifiable X
No answer. . . . . y

Appendix B, continued.

Specific Morphology Categories, Positive Choice (cont.)

Column	Scale
31	EQUIVALENCE

With response to work, the subject used . . .

Equivalence response at least once	1
Equivalence response more than once	2
Equivalence response predominantly	3
This question not asked	9
This category not used	0
Not classifiable	X
No answer	y

SPECIFIC MORPHOLOGY CATEGORIES: NEGATIVE CHOICE

NOTE: Negative Choice columns 32 through 44 are GEOMETRIC CODES. Each set of geometric codes below includes the following standard categories:

This category not mentioned 0
Not classifiable. X
No answer . . . . y

Column **Scale**

32 CREATIVITY COMPLEX

Does the subject mention any of the following aspects of creativity in connection with work?

Creativity. 1
Expression of talent and/or ability. 2
Challenging work. 4

33 SELF FULFILLMENT COMPLEX

Does the subject mention any of the following aspects of self fulfillment in connection with work?

Expression of interest (or disinterest) in work. 1
Cognitive aspects of work (e.g., work with head) 2
Manual aspects of work (e.g., work with hands). 4

34 SOCIAL FULFILLMENT

Does the subject mention any of the following aspects of social fulfillment in connection with work?

Being helpful to or serving others*. 1
Working with people 2
Meeting interesting people**. . . . 4

NOTE: *In the sense it is used here, "serving" does not include service occupations, such as waiter, waitress, etc.

NOTE: **In the sense it is used here, the phrase "interesting people" refers to persons who appeal or are interesting to the respondent.

Appendix B, continued.

Specific Morphology Categories, Negative Choice (cont.)

Column | Scale

35 POWER CONSIDERATIONS

Does the subject mention any of the following aspects of interpersonal power in connection with work?

Autonomy (e.g., be my own boss) 1
Leadership (e.g., be in charge of others) . 2
Responsibility (e.g., be in a position of trust). 4

36 STIMULATION

Does the subject mention any of the following aspects of stimulation in connection with work?

Variety (or lack thereof). 1
Necessity or opportunity to travel. 2
Adventure (or lack thereof) 4

37 WORK CONDITIONS (A)

Does the subject mention any of the following aspects of working conditions?

Desirable or undesirable working conditions*. 1
Good or poor hours. 2
Safety (or lack thereof). 4

NOTE: *As used above, "desirable or undesirable working conditions" is a generic term covering almost all aspects of the conditions under which work is performed. For example, some Ss speak of "dirty work" or "noisy work," etc. Such responses would be coded as "1." Items to be specifically excluded from the "1" code are comments about the hours of work, safety, ease of work, the schedule of payments, and duration of the job task. The items so excluded are to be found elsewhere in the coding scales.

Appendix B, continued.

Specific Morphology Categories, Negative Choice (cont.)

Column   Scale

38   WORK CONDITIONS (B)

Does the subject mention any of the following aspects of working conditions?

Ease or difficulty of work 1
Favorable or unfavorable duration of job task*. 2

NOTE: *Duration of job task, as used here, refers to both the frequency with which one may work (e.g., work is only seasonal) and the duration of work (e.g., no retirement at age 65). Do not code comments such as "there is always a need for a mechanic" under this code.

39   DOES THE SUBJECT MENTION ANY OF THE FOLLOWING REWARDS OF WORK?

Status (e.g., a decent job; a profession, etc.). 1
Economic benefits (e.g., earn a livelihood; fringe benefits, etc.) 2
Security (e.g., steady work). 4
Schedule of payments. 9

NOTE: A 1, 2, or 4 response takes precedence over a 9 response.

40   INSTITUTIONAL LOCUS AND EXTERNAL CONSIDERATIONS (A)

Does the subject mention any of the following items in connection with work?

Institutional locus (setting for work) . . . 1
Availability of leisure time 2
Availability of time with family 4

41   EXTERNAL CONSIDERATIONS (B)

Does the subject mention any of the following items in connection with work?

Choice of living area. 1
Opportunity for travel 2
Benefits for family. 4

Appendix B, continued.

Specific Morphology Categories, Negative Choice (cont.)

Column	Scale
42	SELF APPRAISAL

Does the subject mention any of the following aspects of self appraisal in connection with work?

Possession of capacity	1
Possession of experience	2
Possession of training	4
Possession of suitable personality traits.	9

NOTE: A 1, 2, or 4 response takes precedence over a 9 response.

Column	Scale
43	ASSESSMENT OF OPPORTUNITY STRUCTURE

Does the subject indicate an assessment of the opportunity structure by mentioning any of the following items in connection with work?

Openness of job market*.	1
Availability of a sponsor.	2
Opportunity for advancement**.	4
Appropriateness of age, sex role	9

NOTE: (1) A 1, 2, or 4 response takes precedence over a 9 response.

(2) *Statements such as "there is always a need for a mechanic" are coded as "1."

(3) **Classify the following type of statement under "Advancement" unless social fulfillment is indicated: "make social contacts."

Column	Scale
44	EQUIVALENCE

With response to work, the subject used . . .

Equivalence response at least once	1
Equivalence response more than once.	2
Equivalence response predominately	3

NOTE: This is not a GEOMETRIC CODE.

Appendix B, continued.

Specific Morphology Categories, Negative Choice (cont.)

Column	Scale
45	UNCERTAINTY

In response to the question, "do you know what kind of work you want when you start working?" the subject answered:

No	0
Not Sure	5
Yes.	9
Not classifiable	X
No answer.	y

APPENDIX C:

TABLES

TABLE 1. COMPARISON OF SELECTED BACKGROUND CHARACTERISTICS OF OREGON MALE FRESHMEN AND TONGUE POINT JOB CORPSMEN

Per Cent Who:	Oregon Freshmen[a] (N=194)	Job Corpsmen (N=120)
Background Characteristics		
Live in the Far West	94	16
Are non-Caucasians	00.5	59
Come from middle- and upper-middle-class backgrounds[b]	70	12
Have fathers employed in blue-collar jobs	21	72
Have mothers who are working	47	41
Have at least one parent who has ever been to college	59	11
Have at least one parent who has graduated from high school	89	28
Come from home broken by divorce, death or separation	16	56
Educational Experiences		
Have never attended high school	00	59
Have graduated from high school	100	01
Have taken an active leadership role in high school extra-curricular life	69	--[c]
Report school personnel or experiences influenced their decision to enter the job corps (or college)	77	20
Report school personnel or experiences influenced their choice of occupational goals	75	31

[a] Figures for Oregon freshmen are taken from a 1961 study of a 20 per cent probability sample of matriculating freshmen. (15)

[b] Social class is measured by Ellis's Index of Class Position. (14)

[c] Question was not asked of job corpsmen.

TABLE 2. ORIENTATION OF JOB CORPSMEN AND OREGON FRESHMEN TO FIVE FUTURE LIFE GOALS
(Reported in Percentages)

(N) Job Corpsmen (N) Oregon Freshmen	Going to College (120) (46)	Getting Married (120) (46)	Owning Own Home (120) (46)	Owning A New Car (120) (46)	Getting Job You Want To Do (120) (48)
Has Subject Thought About Decision Area?					
Job Corpsmen					
Yes, seriously	29	46	71	70	78
Yes, not seriously	17	28	20	17	18
Oregon Freshmen					
Yes, seriously	--[a]	35	70	65	57
Yes, not seriously	--	46	15	24	24
How Often Has Subject Thought About Decision Area?[b]					
Job Corpsmen					
Once a month or less	53	34	42	33	07
Two to four times a month	20	28	31	26	25
Twice a week or more	27	38	26	41	68
Oregon Freshmen					
Once a month or less	--[a]	54	54	27	00
Two to four times a month	--	38	46	49	61
Twice a week or more	--	08	00	24	39

(continued on next page)

TABLE 2, contined. Page 2.

(N) Job Corpsmen (N) Oregon Freshmen	Going to College (120) (46)	Getting Married (120) (46)	Owning Own Home (120) (46)	Owning A New Car (120) (46)	Getting Job You Want To Do (120) (48)
Feasibility of Goals[b]					
Job Corpsmen					
Sure thing or excellent chance	05	34	21	20	29
Good chance	16	40	34	36	46
Fair or poor chance	79	26	44	43	24
Oregon Freshmen					
Sure thing or excellent chance	--[a]	57	56	55	38
Good chance	--	38	31	17	53
Fair or poor chance	--	05	13	29	09
Perceived Importance of Attaining Goal[c]					
Job Corpsmen					
Very important	48	41	71	33	96
Very or fairly important	63	76	92	70	99
Oregon Freshmen					
Very important	74	22	41	07	67
Very or fairly important	100	83	85	39	96

[a] Asked only of job corpsmen.

[b] Based on only those subjects who had responded affirmatively to question on whether they had thought about a given decision area. For job corvsmen, the revised N's are: 57, 89, 109, 102, and 113; for Oregon freshmen, revised N's are: 37, 39, 42, and 38.

[c] Subjects were asked how important it is to them to: graduate from college, be married, own your own home, own a new car, and have a steady job.

TABLE 3. OCCUPATIONAL ORIENTATION OF OREGON MALE FRESHMEN AND TONGUE POINT JOB CORPSMEN
(Reported in Percentages)

Orientation to Work	Oregon Freshmen (N=48)	Job Corpsmen (N=120)
Does Subject Know What Work He Wants to Do?		
Yes	65	74
Yes, but not sure	25	16
No	10	12
Specificity of Occupational Goals		
Broad area of work	17	02
Specific field of work	35	33
Specialized job	46	58
No job goals or not classifiable	02	07
Level of Aspiration[a]		
Very high	56	02
High	31	04
Medium	04	22
Low	00	65
No job goals or not classifiable	08	07
Feasibility of Occupational Goals		
Sure thing or excellent chance	38	29
Good chance	53	46
Fair or poor chance	09	24
Age Decision Was Made[b]		
≥ 17	45	44
14 - 16	45	46
≤ 13	10	12
Don't know	00	02
Clearly Expects Job Better than Father's	54	79

[a] Level of aspirations were classified by Hollingshead's occupational scale as follows: very high = 1, high = 2, medium = 3 and 4, and low = 5 to 7. (29)

[b] Based on only those respondents who reported having definite occupational goals. The N for Oregon freshmen was 31; for job corpsmen, 88.

TABLE 4. MORPHOLOGY OF OCCUPATIONAL CHOICE USED BY OREGON FRESHMEN AND JOB CORPSMEN, ANALYZED BY MOC CATEGORIES
(Reported in Percentages)

MOC Categories	Choice Criteria		Exclusion Criteria	
	Freshmen (N=47)	Trainees (N=113)	Freshmen (N=39)	Trainees (N=87)
Intrinsic Features of Work Task	96**	63	90	84
Self fulfillment	77**	46	72**	48
Social fulfillment	38**	12	15**	00
Power considerations	13**	02	13*	05
Stimulation	09	03	26**	08
Work conditions	04	10	18**	55
Extrinsic Rewards of Work	70	67	26	24
Status	19	13	00*	07
Economic benefits	55	49	23	18
Security	26	15	03	00
Extra-Role Considerations	13**	03	13**	01
Work setting	09*	02	08*	01
Non-work considerations	04	01	05	00
Feasibility	51	48	59**	31
Self appraisal	21	11	54**	28
Assessment of opportunity structure	32	40	05	06

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[*] Two-tailed chi square test (1 df)--or Fisher's test of exact probability-- shows differences tend toward statistical significance ($P < .10$).

[**] Two-tailed chi square test (1 df)--or Fisher's test of exact probability--shows differences are statistically significant ($P < .05$).

TABLE 5. MORPHOLOGY OF OCCUPATIONAL CHOICE USED BY OREGON FRESHMEN AND JOB CORPSMEN,
ANALYZED BY MOC ELEMENTS
(Reported in Percentages)

MOC Elements	Choice Criteria		Exclusion Criteria	
	Freshmen (N=47)	Trainees (N=113)	Freshmen (N=39)	Trainees (N=87)
Creativity	15**	04	36**	07
Expression of interest in work	68**	42	36	44
Work with head or ideas	09**	00	26**	03
Work with hands or tools	02	04	13**	02
Service to others	21**	06	05*	00
Work with people	19**	02	10**	00
Meet interesting people	00	04	00	00
Autonomy	11**	01	13**	02
Leadership	02	00	03	00
Responsibility	00	01	00	02
Variety	04*	00	23**	08
Travel	02	02	03	01
Adventure	00	00	00	00
Desirable work conditions	00	03	03**	39

(continued on next page)

TABLE 5, continued. Page 2.

MOC Elements	Choice Criteria Freshmen (N=47)	Choice Criteria Trainees (N=113)	Exclusion Criteria Freshmen (N=39)	Exclusion Criteria Trainees (N=87)
Hours on the job	09**	00	05	05
Safety	00	01	03	10
Ease of work	04	04	08	17
Duration of job task	02	02	00	00
Status	19	13	00**	07
Economic benefits	55	49	23	18
Security	26	15	03	00
Fringe benefits	00	01	--	--
Schedule of payments	00	02	00	01
Work setting	09**	02	08**	01
Non-work considerations	04	01	05*	00
Self appraisal	21	11	54**	28
Assessment of opportunity structure	32	40	05	06

*Two-tailed chi square test (1 df)--or Fisher's test of exact probability--shows differences tend toward statistical significance ($P < .10$).

**Two-tailed chi square test (1 df)--or Fisher's test of exact probability--shows differences are statistically significant ($P < .05$).

TABLE 6. MORPHOLOGY OF OCCUPATIONAL CHOICE USED BY JOB CORPSMEN WHO DROP OUT OF THE PROGRAM AND THOSE WHO REMAIN IN THE PROGRAM
(Reported in Percentages)

MOC Categories	Choice Criteria		Exclusion Criteria	
	Drop Outs (N=20)	Survivors (N=93)	Drop Outs (N=13)	Survivors (N=74)
Intrinsic Features of Work Task	45	67	100*	81
Self fulfillment	25*	51	62	45
Social fulfillment	15	11	00	00
Power considerations	05	01	08	04
Stimulation	05	02	15	07
Work conditions	00	12	77	51*
Extrinsic Rewards of Work	55	70	23	24
Status	25	13	08	08
Economic benefits	45	50	15	19
Security	05	17	00	00
Extra-Role Considerations	05	02	00	01
Work setting	05	01	00	01
Non-work considerations	00	01	00	00
Feasibility	40	49	31	31
Self appraisal	10	11	23	29
Assessment of opportunity structure	30	42	08	05

*Two-tailed chi square test (1 df)--or Fisher's test of exact probability--shows differences tend toward statistical significance ($P < .10$).

TABLE 7. COMPARISONS OF SOCIAL TIME PERSPECTIVES OF JOB CORPSMEN AND OREGON STUDENTS

		Job Corpsmen		
	Oregon Students[a] (N=29)	All Trainees (N=118)	Survivors (N=97)	Drop Outs (N=21)
Maximum Reported Event In Life Cycle (Death Included)				
≥ Initial adult phase (A)	100%	92%	94%	90%
≥ Initial adult phase (B)	90	53	57	33
≥ Early adult role	83	48	52	33
≥ Intermediate adult role	59	14	16	05
≥ Late adult role (A)	48	11	12	05
Mean STP score (death included)	6.41	4.27	4.45	3.93
Maximum Reported Event in Life Cycle (Death Excluded)				
≥ Initial adult phase (A)	97%	92%	93%	90%
≥ Initial adult phase (B)	75	49	53	33
≥ Early adult role	69	44	46	33
≥ Intermediate adult role	41	07	07	05
≥ Late adult role (A)	28	03	02	05
Mean STP score (death excluded)	5.28	3.83	3.93	3.38
Scope				
Mean levels of life cycle encompassed	3.62	2.13	2.22	1.71
Extensiveness				
Mean life cycle event	4.52	2.88	3.01	2.29
Mean Number of STP Responses	6.24	3.64	3.80	2.81

[a] Oregon students consist of all males enrolled in an undergraduate sociology course at the University of Oregon.

TABLE 8. REPORTED FREQUENCY WITH WHICH JOB CORPSMEN AND OREGON STUDENTS THINK ABOUT WHAT THEY WILL BE DOING AT FOUR DIFFERENT PERIODS IN THE FUTURE (Reported in Percentages)

How often in the past year have you thought about what you will be doing when you are . . . ?	Age 20	Age 30	Age 40	Age 50
Job Corpsmen (N=118)				
Frequently	32	23	18	16
Frequently or occasionally	69	53	39	39
Oregon Students[a] (N=29)				
Frequently	65	33	04	04
Frequently or occasionally	84	85	56	34

[a] Oregon students consist of all males enrolled in an undergraduate sociology course at the University of Oregon.

TABLE 9. DEFINITIONS OF MIDDLE AGE AND OLD AGE BY JOB CORPSMEN AND OREGON STUDENTS

Cumulative Per Cent	Job Corpsmen (N=118)	Oregon Students[a] (N=29)
When Is A Person Middle-Aged?		
Under 30	24	00
Under 35	49	19
Under 40	73	41
When Is A Person Old?		
Under 50	18	00
Under 55	25	07
Under 60	40	30
Under 65	58	52

[a] Oregon students consist of all males in an undergraduate sociology course at the University of Oregon.

TABLE 10. COMPARISON OF WILLINGNESS OF OREGON FRESHMEN AND JOB CORPSMEN TO DEFER GRATIFICATION IN ORDER TO GET A JOB WHERE THEY COULD REALLY MAKE GOOD MONEY
(Reported in Percentages)

Gratification Deferral Items	Oregon Freshmen (N=48)	Job Corpsmen (N=86)
Move to a town or place you don't like		
Definitely yes	04**	23
Definitely or probably yes	42**	65
Put off getting married for several years		
Definitely yes	23	35
Definitely or probably yes	65	69
Take a job you are not sure will last		
Definitely yes	02	08
Definitely or probably yes	52**	27
Move away from your family and relatives so you could only see them once a year		
Definitely yes	40**	23
Definitely or probably yes	81**	60
Live on a tight budget for several years		
Definitely yes	27	21
Definitely or probably yes	81	76
Go without having your own car for several years		
Definitely yes	31	28
Definitely or probably yes	71	70
Put in a 60-hour week		
Definitely yes	38	42
Definitely or probably yes	75	86

[a] The number of job corpsmen included for analysis is reduced by the fact that the gratification deferral questions were asked in the two-month follow-up interview.

**One-tailed chi square test (1 df) shows differences are statistically significant ($P < .05$) in expected direction.

TABLE 11. COMPARISON OF WILLINGNESS OF OREGON FRESHMEN AND JOB CORPSMEN TO DEFER GRATIFICATION IN ORDER TO GET THE EDUCATION THEY WANT

(Reported in Percentages)

Gratification Deferral Items	Oregon Freshmen (N=48)	Job Corpsmen (N=48)[a]
Move to a town or place you don't like		
Definitely yes	19	19
Definitely or probably yes	83**	58
Put off getting married for several years		
Definitely yes	60	52
Definitely or probably yes	100**	88
Take a "flunky" job		
Definitely yes	38	31
Definitely or probably yes	73	67
Move away from your family and relatives so you could only see them once a year		
Definitely yes	54**	29
Definitely or probably yes	90**	69
Live on a tight budget for several years		
Definitely yes	42*	27
Definitely or probably yes	90*	77
Go without having your own car for several years		
Definitely yes	67**	38
Definitely or probably yes	94*	81
Spend six nights a week at home studying		
Definitely yes	23	52
Definitely or probably yes	73	88

[a] The number of job corpsmen included for analysis is reduced by the fact that the gratification deferral questions were asked in the two-month follow-up interview and by the necessity of restricting the analysis to those subjects who indicated a desire to go back to school.

*One-tailed chi square test (1 df) shows differences tend toward statistical significance ($P < .10$) in expected direction.

**One-tailed chi square test (1 df)--or Fisher's test of exact probability --shows differences are statistically significant ($P < .05$) in expected direction.

TABLE 12. EFFECT OF INTERVIEW AND QUESTIONNAIRE ON SELECTED DATA ON MORPHOLOGY OF OCCUPATIONAL CHOICE
(Reported in Percentages)

MOC Categories for Choice Criteria	Job Corpsmen (N=113)	Oregon Freshmen		Differences	
		Interviews (N=47)	Questionnaires (N=41)	Corpsmen vs. Freshmen	Interview vs. Questionnaire
Intrinsic features of work task	63	96	73	-33	+23
Extrinsic rewards of work	67	70	54	-03	+16
Extra-role considerations	03	13	05	-10	+08
Feasibility	48	51	29	-03	+22

TABLE 13. EFFECT OF INTERVIEW AND QUESTIONNAIRE ON SELECTED DATA ON ORIENTATION TO FUTURE LIFE GOALS
(Reported in Percentages)

	Job Corpsmen (N=120)	Oregon Freshmen		Differences	
		Interviews (N=48)	Questionnaires (N=41)	Corpsmen vs. Freshmen	Interview vs. Questionnaire
Subject Has Seriously Thought About					
Marriage	46	35	22	+09	+13
Owning own home	71	70	35	+01	+35
Owning a new car	70	65	59	+05	+06
Getting job you want	78	57	51	+21	+06
Does Subject Know What Work He Wants To Do?					
Yes	74	65	51	+09	+14
Specificity of Occupational Goals					
Specialized job	58	46	29	+12	+17
Age Occupational Decision Was Made					
≤ 13	12	10	18	+02	-08
Subject Clearly Expects Job Better Than His Father's	79	54	68	+25	-14

TABLE 14. EFFECT OF INTERVIEW AND QUESTIONNAIRE ON SELECTED DATA ON DEFERRED GRATIFICATION

Per Cent Who Are Willing To:	Job Corpsmen (N=86)[a]	Oregon Freshmen		Differences	
		Interviews (N=48)	Questionnaires (N=37)	Corpsmen vs. Freshmen	Interview vs. Questionnaire
Deferral for Occupational Goals					
Live on a tight budget for several years	76	81	54	-05	+27
Go without having your own car for several years	70	71	43	-01	+28
Put in a 60-hour week	86	75	57	+11	+18
Deferral for Educational Goals					
Put off getting married for several years	88	100	86	-12	+14
Live on a tight budget for several years[b]	27	42	22	-15	+20
Go without having your own car for several years[b]	38	67	35	-29	+32
Spend 6 nights a week at home studying	88	73	54	+15	+19

[a] Number of cases for deferral for education goals = 48.

[b] Percentages computed for respondents who answered "Definitely Yes" to question.

TABLE 15. EFFECT OF INTERVIEWS AND QUESTIONNAIRES ON SUBJECTS' WILLINGNESS TO PARTICIPATE IN RESEARCH

Per Cent Who Are:	Oregon Freshmen Interviews (N=53)	Questionnaires (N=52)
Late respondents[a]	17	40
Non-respondents[b]	09	21

[a] Two-tailed chi square (1 df) = 5.62; $P < .05$.

[b] Two-tailed chi square (1 df) = 1.96; $P > .05$.